



FACULTEIT ECONOMIE EN BEDRIJFSKUNDE

**Governance of Business Services Exchanges:
Contracts, Relations and Frontline Employee Behaviour.**

Darline Vandaele

Promotor: Prof. Dr. Paul Gemmel

*Proefschrift ingediend tot het behalen van de academische graad
van doctor in de Toegepaste Economische Wetenschappen*

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Voorwoord

Een graankorrel groeit niet vanzelf uit tot een graangewas: er is een vruchtbare bodem en voldoende water, licht en warmte nodig. Bij een doctoraat is het net eender. Graag zou ik hier die mensen bedanken die gezorgd hebben voor een vruchtbare bodem en voor water, licht en warmte nodig om dit proefschrift tot stand te brengen.

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Samenvatting

Bij de meeste organisaties maakt de inkoop van diensten een belangrijk deel uit van hun huidige budget voor externe aankopen. Door deze groeiende inkooppraktijken wint de interactie tussen verkoper en koper aan belang in de dienstensector. Nochtans worden er in de academische wereld weinig studies over de inkoop van diensten gewijd aan die interactie tussen verkoper en koper en aan de mechanismen om die interactie te beheren in de periode na de aankoop. Dit is zeker het geval voor deze diensten die vanuit strategisch oogpunt als minder waardevol beschouwd worden, zoals de ondersteunende diensten. Ondersteunende diensten zijn die diensten die noodzakelijk zijn voor de dagelijkse werking van het bedrijf om het te helpen bij zijn kernactiviteiten. Tijdens de jaren negentig is de uitbesteding van deze diensten sterk toegenomen en de meeste bedrijven kopen momenteel ondersteunende diensten aan van één of meerdere externe leveranciers: de ondersteunende diensten zijn een belangrijk deel van de bedrijfsgerichte dienstensector geworden. Een specifiek kenmerk van ondersteunende diensten is dat deze voornamelijk geleverd worden op de bedrijfsterreinen van de aankoper. Bijgevolg worden in deze doctoraatsthesis rond ondersteunende diensten niet alleen de beheermechanismen van de interactie opgenomen, maar ook het gedrag van het dienstverlenende personeel van de externe leverancier.

Deze doctoraatsthesis focust op een specifiek type van ondersteunende diensten: de empirische studies vinden plaats in de bewakingssector waarbij de supervisie en bescherming van (im-)mobiele goederen en van personen ter waarborging van de veiligheid in publieke plaatsen centraal staan. Bewakingsdiensten zijn sterk gereguleerd door de wet en veel bedrijven besteden deze dienst uit, ook in België. De laatste jaren is deze sector sterk gegroeid en de meeste organisaties kopen momenteel (een deel van) de bewakingsdiensten extern aan. Ondanks de toegenomen handelsactiviteit in de bewakingssector hebben weinig academische studies deze specifieke sector onderzocht. Bovendien beschouwen veel bedrijven aangekochte bewakingsdiensten, en andere ondersteunende diensten, als te onbelangrijk om er voldoende aandacht vanuit het management aan te schenken.

Het doel van deze doctoraatsthesis is het onderzoeken van de interactie tussen een dienstverlener en een klantenorganisatie. Meer bepaald wensen we na te gaan hoe de performantie in bedrijfsgerichte dienstverlening verhoogd kan worden aan de hand van het

gedrag van het dienstverlenende personeel en aan de hand van contractuele en relationele beheermechanismen. Gebaseerd op de bovenstaande bevindingen is het doel van deze doctoraatsthesis driedelig. Het eerste objectief is het belang van aangekochte diensten en hun impact doorheen de bedrijfsketen nagaan. Het tweede objectief is het onderzoeken van de beheermechanismen van het dienstverleningsproces bij bedrijven: de interactie tussen contractuele en relationele beheermechanismen, hun impact op de performantie en ook hoe bepaalde kenmerken van de dienstuitwisseling de beheermechanismen beïnvloeden. Aangezien diensten geleverd worden door mensen onderzoeken we tenslotte ook het gedrag van het dienstverlenende personeel en hoe verschillende soorten gedrag een invloed uitoefenen op de performantie in bedrijfsgerichte dienstverlening.

Om aan deze objectieven te voldoen, hebben we drie empirische onderzoeken en één conceptueel onderzoek uitgevoerd. De empirische onderzoeken vonden allen plaats in de Belgische bewakingsmarkt. Voor het eerste onderzoeksdoel werd er data verzameld bij 201 klantenorganisaties van een onderneming die de bewakingsdiensten aankocht van een externe leverancier. Voor de tweede doelstelling werd in de conceptuele studie eerst een model voor het beheren van het bedrijfsgerichte dienstverleningsproces opgesteld. Om de beheermechanismen van het dienstverleningsproces verder te onderzoeken werd er gebruik gemaakt van 124 vragenlijsten afgenomen bij klantenorganisaties die bewakingsdiensten (deels) extern aankochten. Voor het laatste onderzoeksdoel werd er data verzameld bij 1174 bewakingsagenten tewerkgesteld bij een Belgische bewakingsleverancier.

De belangrijkste bevindingen voor de drie objectieven zijn:

1. Aangekochte diensten in de bedrijfsketen

De eerste empirische studie toont aan dat aangekochte diensten een invloed kunnen hebben op organisaties die zich verder stroomafwaarts in de bedrijfsketen bevinden. De relatie van de externe leverancier met het aankopende bedrijf en de relatie van het aankopende bedrijf met zijn klantenorganisaties zijn dus onderling verbonden, ook voor deze aangekochte diensten die als minder belangrijk beschouwd worden. De leverancier van ondersteunende diensten behoort dus tot het bedrijfsnetwerk van het aankopende bedrijf en deze dienstuitwisseling zou daarom ook zorgvuldig beheerd moeten worden.

2. Contractuele en relationele beheermechanismen, hun antecedenten en performantie

Bij het tweede objectief kunnen er drie belangrijke bevindingen genoteerd worden. Ten eerste zijn relationele en contractuele beheermechanismen – waarbij die laatste bestaan uit contractdetail en contractflexibiliteit – complementen en geen substituten. Contractdetail bevordert de ontwikkeling van relationele beheermechanismen, terwijl contractflexibiliteit en relationele beheermechanismen beiden positief gerelateerd zijn aan de geleverde performantie. Ten tweede hebben specifieke karakteristieken van diensten een invloed op bepaalde kenmerken van de dienstuitwisseling, meer bepaald op de specificiteit van de investeringen en op onzekerheid. Zo bestaan, door het minder tastbare karakter van diensten, transactiespecifieke investeringen niet alleen uit materiële en menselijke factoren, maar eveneens uit procesgerichte factoren. Doordat diensten ook meer gericht zijn op mensen speelt gedragsonzekerheid een grotere rol in dienstenomgevingen. Ten derde hebben deze kenmerken die beïnvloed worden door specifieke dienstenkarakteristieken niet dezelfde invloed op de beheermechanismen. Transactiespecifieke investeringen van de leverancier (leverancierspecifieke investeringen) zijn positief gerelateerd aan contractdetail, contractflexibiliteit en relationele beheermechanismen. Omgevingsonzekerheid vergroot het effect van leverancierspecifieke investeringen op contractflexibiliteit. Dit type van onzekerheid is ook negatief gerelateerd aan contractdetail, maar is niet gerelateerd aan relationele beheermechanismen. Gedragsonzekerheid daarentegen is negatief gerelateerd aan zowel contractdetail als relationele beheermechanismen. Dit type van onzekerheid is alleen negatief gerelateerd aan contractflexibiliteit bij een laag niveau van klantspecifieke investeringen. Transactiespecifieke investeringen van de klant bufferen dus het effect van gedragsonzekerheid op contractflexibiliteit. Klantspecifieke investeringen zijn ook positief gerelateerd aan de relationele beheermechanismen, maar in tegenstelling tot de leverancierspecifieke investeringen zijn klantspecifieke investeringen niet gerelateerd aan contractdetail.

3. Gedrag van het dienstverlenende personeel en performantie

De resultaten van de laatste studie geven aan dat het voorgeschreven (aanbevolen) gedrag van het dienstverlenende personeel een positieve invloed heeft op zowel geleverde productiviteit als geleverde kwaliteit. Het bijkomende (boven het normale) gedrag van het dienstverlenende personeel is een antecedent van het voorgeschreven gedrag. Bijgevolg gaat de impact van het bijkomende gedrag op de geleverde kwaliteit volledig via het voorgeschreven gedrag. Het bijkomende gedrag heeft daarentegen wel een directe en positieve impact op de geleverde

productiviteit: het voorgeschreven gedrag brengt enkel gedeeltelijk de impact van het bijkomende gedrag op geleverde productiviteit over.

De belangrijkste focus in deze doctoraatsthesis is business services management: we onderzoeken hoe bedrijfsgerichte dienstverleningsprocessen, meer bepaald deze van ondersteunende diensten, gemanaged moeten worden om de performantie te verhogen. De studies opgenomen in deze doctoraatsthesis bevatten verscheidene waardevolle bijdragen. Vanuit een theoretisch standpunt kunnen vier belangrijke bijdragen geformuleerd worden. Ten eerste draagt deze doctoraatsthesis bij tot de literatuur rond de bedrijfsketen en de theorie van bedrijfsnetwerken door aan te duiden dat niet alleen relaties met leveranciers die een vanuit strategisch oogpunt waardevolle dienst leveren in beschouwingen mogen worden genomen. Leveranciers die een relatief gezien minder kritische dienst leveren zouden ook beschouwd moeten worden als lid van het bedrijfsnetwerk. Ten tweede draagt deze doctoraatsthesis bij tot de transactiekostentheorie. De resultaten geven aan dat specifieke karakteristieken van diensten een impact hebben op de meest frequent geciteerde antecedenten van beheermechanismen voor transacties tussen bedrijven: specifieke investeringen omvatten ook procesgerichte factoren en gedragsonzekerheid speelt een grotere rol in dienstensectoren. Een derde bijdrage van deze doctoraatsthesis is tot de studie van contracten en coördinatiemechanismen. De empirische resultaten staven het complementaire karakter van contractuele en relationele beheermechanismen gebaseerd op de tweedimensionele structuur van contracten. Ten slotte draagt deze doctoraatsthesis ook bij tot de literatuur rond het gedrag van het dienstverlenende personeel door voor de geleverde productiviteit de mediërende rol van het voorgeschreven gedrag te verminderen en het belang van het bijkomende gedrag te benadrukken.

De onderzoeksresultaten van deze doctoraatsthesis hebben eveneens praktische relevanties. Het is noodzakelijk dat het management van ondernemingen belang hecht aan de ondersteunende diensten die worden aangekocht van een externe leverancier, vooral rond het beheer van deze dienstuitwisselingen en de impact van het dienstverlenende personeel. Een geschreven, formele overeenkomst – of contract – zou moeten opgesteld worden tussen de leverancier en het aankopende bedrijf en deze overeenkomst zou ook gebruikt moeten worden voor het beheer van de interactie tussen koper en verkoper na de aankoop. Afhankelijk van de kenmerken van de specifieke dienstuitwisseling, zou er een aangepast niveau van contractdetail, contractflexibiliteit en relationele waarden ontwikkeld moeten worden en het

voorgeschreven en bijkomende gedrag van het dienstverlenende personeel zou gestimuleerd moeten worden, ook door het aankopende bedrijf, om op die manier de performantie van de desbetreffende dienstuitwisseling te verhogen.

Summary

The procurement of business services has become a substantial part of the external purchases for most organizations. Because of these increased sourcing practices, the interaction between buyer and seller gains in importance in services settings. In the academic world however, few studies on service sourcing have investigated this buyer-seller interaction and the mechanisms used to govern the exchange in the life after the purchase. This is especially true for those services considered less strategically valuable such as support services. Support services are those services needed for the day-to-day running of the business to *assist* the company in its core business delivery. The outsourcing of these services has expanded during the 1990s and many companies are now purchasing support services from an external supplier: support services have become an important part of the business services sector. One specific characteristic of support services is that these are mainly delivered at the premises of the buying organization. Therefore, in this dissertation on support services exchanges, not only the exchange governance mechanisms are incorporated, but also the behaviour of the supplier's frontline employees.

This dissertation focuses on one specific type of support services: the empirical studies are set in security services related to the supervision and protection of (im-)mobile goods and of persons to assure the security in public places. Security services are highly regulated by law and are highly outsourced in business companies, also in Belgium. The sector has been growing significantly the past few years and most business organizations purchase (a part of) the security services from an external supplier. Despite the increased business activity in the security sector, few academic research studies have covered this specific research setting. Moreover, buying organizations do not always consider security services, and other support services, as important enough to give these services sufficient managerial attention.

The main goal of this dissertation is to investigate the exchange between a service supplier and a buying organization. More specifically, we want to examine how the performance in business services exchanges can be enhanced by means of frontline employee behaviour and contractual and relational governance mechanisms. Based on the above considerations, the aim of this dissertation is threefold. Its first objective is to investigate the relevance of purchased business services and their impact along the service supply chain. The second

objective is to examine the governance mechanisms of business services exchanges: the interplay between contractual and relational governance, their impact on performance outcomes and how certain features of the service transaction affect the exchange governance mechanisms. As services are delivered by frontline employees, the third objective is to examine frontline employee behaviour and how different types of employee behaviour influence performance outcomes in business services exchanges.

To meet these objectives, we conduct three empirical studies and one conceptual study. The empirical studies were set in the Belgian security services market. The first objective is achieved based on data collected by 201 business customers of an organization buying security services from an external supplier. To meet the second objective, the conceptual study proposes a model for business services exchange governance. To investigate exchange governance in business services settings more in detail, 124 valid questionnaires from business customers buying security services from one or more security services suppliers are used. Finally, the third objective involves 1,174 security agents employed at a Belgian security services supplier.

The main findings on the three objectives are:

1. Purchased business services in the supply chain

The first empirical study indicates that purchased business services can influence downstream supply chain members. The relationship of the external supplier with the buying organization and the relationship of the buying organization with its business customers are interconnected, even when purchased services are considered less important. Support services suppliers thus belong to the buying organization's business network and their exchanges should therefore be carefully governed.

2. Contractual and relational governance, their antecedents and performance outcomes

On the second objective, the results reveal three important findings. First, relational governance and contractual governance - consisting of contract detail and contract flexibility - are complements, and not substitutes. Contract detail facilitates the development of relational governance, while contract flexibility and relational governance are both positively related to performance outcomes. Second, service characteristics influence certain features of the service transaction, i.e. asset specificity and uncertainty. Transaction-specific investments, or

asset specificity, do not only consist of physical and human aspects, but also of procedural aspects because of the less tangible character of services. Because of the more people-oriented character of services, behavioural uncertainty is supposed to play a more profound role in services settings. Third, those features of the service transaction influenced by specific service characteristics do not affect the exchange governance mechanisms in the same way. Transaction specific investments of the supplier (supplier asset specificity) are positively related to contract detail, contract flexibility and relational governance. Environmental uncertainty enhances the effect of supplier asset specificity on contract flexibility. This type of uncertainty is also negatively related to contract detail and is not related to relational governance. On the other hand, behavioural uncertainty is negatively related to both contract detail and relational governance. This type of uncertainty is only negatively related to contract flexibility in case of low buyer asset specificity. Buyer asset specificity, or the transaction-specific investments of the buyer, thus buffers the effect of behavioural uncertainty on contract flexibility. Buyer asset specificity is also positively related to relational governance, but in contrast with supplier asset specificity, buyer asset specificity is not related to contract detail.

3. Frontline employee behaviour and performance outcomes

The results of the last study indicate that role-prescribed or in-role behaviour of the frontline employee has a positive impact on both performed productivity and performed quality. Extra-role behaviour of the frontline employee is an antecedent of in-role behaviour. As a consequence, in-role behaviour is a full mediator for the impact of extra-role behaviour on performed quality. By contrast, extra-role behaviour does have a direct and positive impact on performed productivity: in-role behaviour only partially mediates the impact of extra-role behaviour on performed productivity.

In this dissertation, the main focus is on business services management: we investigate how business services exchanges, and support services exchanges in particular, should be managed to enhance performance outcomes. The studies included in this dissertation add several valuable contributions. From a theoretical point of view, four major contributions can be identified. First, this dissertation contributes to the supply chain literature and business network theory by indicating that not only relationships with suppliers delivering strategically valuable services should be considered. Organizations supplying business services considered less critical such as support services should also be regarded as a member of the business

network. Second, this dissertation makes a contribution to transaction cost theory. The results indicate that specific service characteristics have an impact on the most frequently cited antecedents of exchange governance in transaction cost theory: asset specificity also relates to procedural aspects and behavioural uncertainty plays a more profound role in services. A third contribution of this dissertation is on the study of contracting and coordination mechanisms. The empirical results support the complementary nature of contractual and relational governance based on the two-dimensional structure of contracts. Finally, this dissertation also contributes to the literature on frontline employee behaviour by diminishing the mediating role of in-role behaviour and stressing the importance of extra-role behaviour in performance productivity.

The research results of this dissertation have practical relevance as well. For the management in buying organizations, it is important to pay attention to the support services purchased from an external supplier, especially to the governance of those exchanges and the impact of frontline employees delivering the service. A written, formal agreement or contract should be established between supplier and buyer and that agreement should also be used during the ongoing interaction in the life after the purchase. Dependent on the features of the specific service transaction, an appropriate level of contract detail, contract flexibility and relational norms should be developed and in-role and extra-role behaviour of frontline employees should be stimulated, also by the buying organization, to enhance the performance outcomes of the exchange under consideration.

Chapter I. Introduction

In today's economy, the business services sector continues to grow because of the outsourcing story and growing internationalization. The share of services in total purchase volumes has increased (Murray and Kotabe, 1999) and employment in business services keeps rising. For most organizations, the procurement of business services has become a substantial part of their total acquisitions of external resources (Axelsson and Wynstra, 2002). As a consequence, due to increased sourcing practices, interactions between buying and selling organizations gain in importance, especially in business services settings. Knowledge of how to govern business services exchanges helps organizations in establishing long-lasting relationships with relevant counterparts and thus in creating a competitive advantage. Despite the importance of buyer-seller interactions in business services exchanges, few studies on service sourcing have investigated the ongoing interaction between buying and supplying organizations in the life after the purchase (Wynstra et al., 2006). There has been a considerable amount of research studies on how to govern business relationships, but few researchers have integrated the specific characteristics of services into their study. Nevertheless, the marketing and purchasing of business services is seen as essentially different from the marketing and purchasing of goods (Jackson and Cooper, 1988; Jackson et al., 1995). Due to these disparities between services and goods, manufacturing firms and business service suppliers can have a deviant preference for alternative governance mechanisms (Brouthers and Brouthers, 2003). Another disparity between goods and services exchanges is the higher customer-employee interaction during service delivery (Schneider et al., 2005). Frontline employees have a stronger influence on the service exchange and its performance outcomes than on the exchange of goods, also in a business-to-business environment (Bettencourt and Brown, 2003).

The main aim of this dissertation is to investigate the exchange governance between a service supplier and a buying organization: we want to examine how the performance of the buyer-supplier relationship can be enhanced. First, the relevance of exchange governance in services settings is explored based on the impact of purchased services along the supply chain. In the next step we scan previous research on exchange governance. Based on this overview, we investigate alternative governance mechanisms and their impact on performance in business services exchanges. The two general types of governance mechanisms, i.e. contract and

relation, are incorporated. Contractual governance is a more formal governance strategy, while relational governance is more informal. We also investigate the determining factors for those governance mechanisms from both an economic and a social perspective. Finally, as services are delivered by people, i.e. frontline employees, the behaviour of these employees and its impact on performance outcomes are further explored. Different types of frontline employee behaviour are investigated: we examine the impact of certain types of extra-role and in-role behaviour on performance.

1.01 *Theoretical Background*

Several theories or frameworks have been developed to understand and manage the complex world of business-to-business interactions and industrial networks. Firms do not operate in isolation but must seek to collaborate with other partners to achieve their goals (Batt and Purchase, 2004). Certain research studies focus on dyadic relationships between organizations to investigate the interaction between buyer and seller, while other authors take a wider perspective and place more emphasis on the network system in which a firm operates. These research groups both focus on the organizational level, whereas other researchers examine buyer-seller interactions from the frontline employees' point-of-view.

(i) Buyer-seller interaction

The transaction cost theory of Williamson (1975; 1979) is among the first approaches to explain the governance structure of good or service exchanges between two organizations and has become one of the leading perspectives (David and Han, 2004). The focus of transaction cost theory is on dyadic relationships (Johanson and Mattsson, 1987). The market, the firm (vertical integration) and an intermediate form (hybrid) are the main governance mechanisms (Williamson, 1991). However, to examine exchange governance, Williamson (1985, pp. xii) states that “transaction cost arguments are often best used in conjunction with, rather than to the exclusion of, other ways of examining the same phenomena”. In the intermediate governance form, interfirm relationships or bilateral governance are considered (Joshi and Stump, 1999; Zaheer and Venkatraman, 1995). This indicates that transactions between external partners can not just be considered as discrete events: the relationship aspect comes into play (Dwyer et al., 1987; Pilling et al., 1994). Therefore, transaction cost theory of

Williamson (1979) is often complemented with the relational exchange theory of Macneil (1980). In his theory, Macneil (1980) describes the governance of exchange relationships in terms of the relationship orientation of the exchange partners and the presence and relative strength of relational norms (Pilling et al., 1994). Relational norms are those norms that develop within a relationship (Macneil, 1983) and are defined as the bilateral expectations that exchange partners will act in ways that assist each other during the course of the relationship (Joshi and Campbell, 2003). The more emphasis is placed on relational norms by the exchange partners, the higher the relational governance of the exchange.

The common goal of the transaction cost theory and the relational exchange theory is to understand the operation of governance structures, indicating the complementary nature of their interrelationship (Ivens and Blois, 2004). In the relational exchange theory, more emphasis is placed on the “soft” features such as the relational norms developed by Macneil (1980), while the transaction cost theory focuses more on “hard” features such as economic safeguards. When a buying organization purchases business services from an external supplier, the main economic governance mechanism used is contractual governance (Cannon et al., 2000). Contractual governance emphasizes the use of an explicit, formal, legally-binding, and written agreement, or contract, to govern interfirm relationships (Lee and Cavusgil, 2006). In the research design of this dissertation, we include hard, economic aspects, i.e. the contract, as well as soft, more relational aspects, i.e. relational norms, as this allows more in-depth insight into the complex structures of exchange governance.

(ii) Industrial networks

In the business economy, firms operate within a network of firms. Each firm has direct interactions with several partners such as customers or suppliers, but also indirect relationships with customer’s customers, supplier’s suppliers, competitors and others. In transaction cost theory, the transaction is defined as a dyadic relationship and relational exchange theory also deals with one specific buyer-seller interaction. However, the industrial system is made up of many dyadic relations that are more or less interdependent (Johanson and Mattsson, 1987): changes in one specific buyer-seller relationship can have an affect on other dyads in the network. Therefore, other theoretical frameworks need to be included to obtain a more global insight into the governance of a particular exchange between buyer and seller.

Since the early 1980s, the Industrial Marketing and Purchasing (IMP) Group have been consistently arguing that industrial research studies should focus more on the ongoing interactions between buyer and supplier (Hakansson, 1982; Wynstra et al., 2006). This research group was among the first to stress that firms operate in a business network consisting of several networks of relationships among firms (Johanson and Mattsson, 1987): firms not only have relationships with different parties, these different interactions also influence the other relationships within the network. A business network can thus be defined as a set of two or more connected business relationships (the one contingent on the other), in which each exchange relation is between business firms (Anderson et al., 1994). While developed in manufacturing settings, the network approach has increasingly been used in studies of business services (Wynstra et al., 2006). The service supply chain can be considered as a specific type of business network, consisting only of those relationships between suppliers and buyers needed for the delivery of a particular service. In a service supply chain, the focus is on customer-supplier dualities and the bidirectional flow of input (information, knowledge, etc.) (Sampson, 2000). Because of this bidirectional flow in service supply chains, buyer and supplier interact more frequently and the governance of the business service exchange gains in importance. In this dissertation, the IMP theory on business networks and the theory of service supply chain are used to put business services exchanges in a broader framework and to investigate the relevance of exchange governance for purchased business services.

(iii) Frontline employees

In services settings, frontline employees play a key role in services exchanges: they deliver the services to the customers, i.e. consumers or business organizations. It is generally acknowledged that frontline employee behaviour and performance outcomes are linked (Schneider et al., 2005), but studies on buyer-seller interactions have focused on how the buying organization and the selling organization interact on a firm-to-firm level (Haytko, 2004), without incorporating the employee perspective. The majority of studies in interorganizational exchange have focused on dyadic relationships (Haytko, 2004), without addressing the influence of boundary spanners or frontline service employees in the relationship (Ferguson et al., 2005). Economic theories of exchange have mainly ignored the role of people and their importance in the management of interorganizational relations,

although boundary spanners can shape and modify the buyer-seller relationship (Hutt et al., 2000). In this dissertation, we do not limit our study on business services exchanges to contractual and relational governance mechanisms; we also include frontline employees and their behaviour to investigate the performance of buyer-seller relationships.

1.02 *Research Design*

The general aim of this dissertation is to investigate business services exchanges and how the performance of buyer-seller interactions in business services settings can be enhanced. In pursuit of this aim, three objectives are distinguished. The first objective is to investigate the relevance of purchased business services based on their impact along the supply chain. The second objective is to examine the governance mechanism of business services exchanges, their determining factors and performance outcomes. Finally, as services are delivered by frontline employees, the third objective is to further explore the impact of their behaviour on performance.

Based on these objectives, five general research questions are formulated, relating to

- the impact of purchased business services along the supply chain
- the determining factors of business services exchange governance
- the influence of certain determining factors on contractual and relational governance in business services exchanges
- the interplay between contractual and relational governance mechanisms and its impact on performance in business services settings
- the impact of frontline employee behaviour on performance outcomes in business services settings

(i) Research setting

Despite the growing importance of business services in organizations' external acquisitions, (Axelsson and Wynstra, 2002), research studies in a business services setting are still scarce compared to those in consumer settings (Johnston, 2005). Moreover, business exchanges have been more frequently investigated in a manufacturing than in a service setting (Brown et al., 2000). Business services that have been investigated in previous studies on interfirm

exchange governance are for example financial or banking services (Ferguson et al., 2005), consultancy (Bennett and Robson, 2004), information services (Poppo and Zenger, 2002), distribution (Siguaw et al., 1998), and R&D (Carson et al., 2006). These examples illustrate that most research studies concentrate on services considered more or less critical for the functioning of the buying organization or for the delivery to end-customers. The exchange governance of support services, i.e. those services needed for the day-to-day running of the business to *assist* the company in its core business delivery (Wright, 2004), has not yet been thoroughly investigated. On the other hand, the phenomenon of outsourcing support services is growing rapidly (Abraham and Taylor, 1996) and has expanded during the 1990s (Bröchner et al., 2002). Many of these services are now outsourced, franchised or operated under licence (Wright, 2004). Support services have become an important part of the business services sector (Lehtonen and Salonen, 2005). As more companies are purchasing those services from an external supplier, the exchange governance between a support services supplier and a buying organization needs to be further investigated. One specific characteristic of support services is that these are mainly delivered at the premises of the buying organization (Bröchner, 2001). So, when investigating support services exchanges and their performance outcomes, the behaviour of frontline employees should also be incorporated.

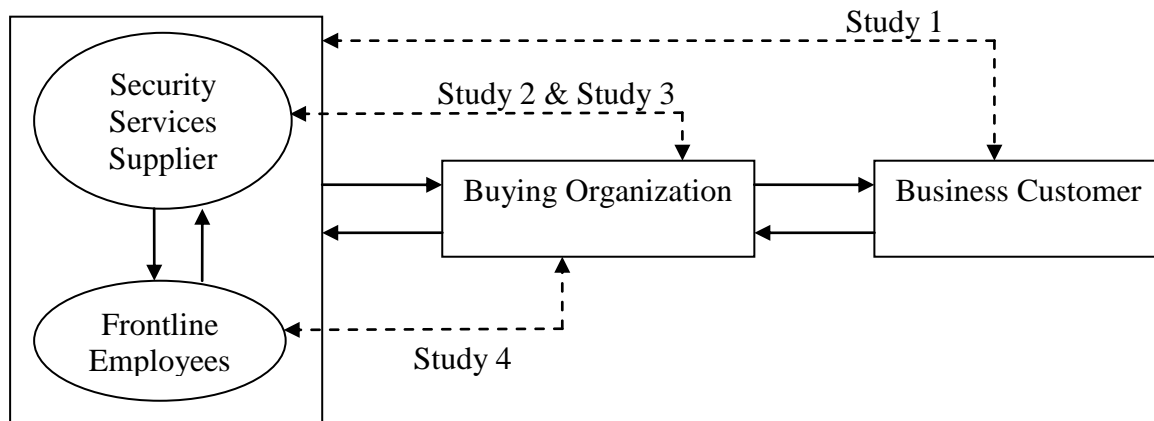
Support services consist of several kinds of services such as soft services (cleaning, catering, green services, waste management), technical services (maintenance, energy management), security services, real estate management, and others (Pintelon et al., 2004). In this dissertation, we focus on one specific type of support services: security services. There are two main reasons for selecting this specific services setting. First, investigating support services as a whole is not recommended. In the current business environment, the scope of support services is not uniformly defined, making it difficult for researchers to delineate the research setting. Moreover, previous research studies on exchange governance of business services also focused on one particular type of services (cf. *supra*), mainly because differences in characteristics of the transaction among business services, and also support services, make it difficult to aggregate several types of service exchanges. Second, private security services are strictly regulated by law in most European countries, especially in Belgium (Weber, 2002). This allows us to clearly define which kinds of service delivery will be incorporated in the research study (cf. *infra*). Previous studies also indicate that security services are highly outsourced in business companies (Bröchner et al., 2002) and specifically in Belgian organizations (Pintelon et al., 2004). The private security sector has been growing

significantly in the European Union over the past 10 to 15 years and private security companies are increasingly taking on roles previously performed in-house (Weber, 2002). As a result, most business organizations purchase (a part of) the security services from an external supplier. Therefore, this type of support services is suitable for our research's purpose.

In Belgium, private security services are regulated by the 'Law regulating the Private and Special Security' of April 10th 1990 and by further details in Royal decrees, Ministerial decrees and Circulars. The law regulations cover several areas of security services of which the most important (based on turnover in 2003) (CoESS, 2004) are supervision and protection of (im-)mobile goods (72.21%), supervision and protection of transport of valuables (cash in transit) (13.10%), and conception, installation and maintenance of alarm systems and alarm centres (5.31%). In this dissertation, we focus on supervision and protection of (im-)mobile goods. We also include supervision and control of persons in view of the assurance of the security in public place (3.61% of the turnover in 2003) (CoESS, 2004), because this study is set in a services environment in which employee-customer interaction plays a role. The past five years, both turnover and number of people employed in the security services sector in Belgium have increased (De Clerck, 2003). Since 2001, more than 50% of the turnover has been generated by two security companies in Belgium.

(ii) Research studies

Based on the general aim and research questions, four studies were performed. Figure 1 gives an overview of those studies and how these are related to each other. The first study is an empirical study based on quantitative data and has a more exploratory design. The second study is a conceptual study with a descriptive research design incorporating results of previous research studies. The last two studies, study 3 and study 4, are empirical studies based on quantitative data and have a conclusive design.

Figure I-1: Overview of research studies

In the first study (Chapter 2), the sourcing of business services is looked at from a supply chain perspective. From the service supply chain view, the organization buying a particular business service also delivers a particular good or service to its customers. While previous research studies have stated that relationships with suppliers delivering strategically valuable products or services can be an important source of competitive value (Ritter et al., 2004), it was unclear whether or not support services could affect downstream supply chain members. When support services do influence end-customers, the support services supplier becomes part of the buying organization's network. As a consequence, the exchanges with the support services supplier should be more closely governed: support service exchange governance gains in importance. In this study, we investigate the influence of security services delivered to a buying organization on the buying organization's customers. The respondents for this study are the customers of one particular organization buying security services from a major security services supplier in Belgium.

This study will give us an answer on the first research question:

RQ1: What is the impact of purchased business services on downstream supply chain members?

In the second study (Chapter 3), we give an overview of previous research studies investigating contractual and/or relational governance mechanisms in manufacturing or services settings. Based on the empirical results of these previous studies and taking into account the transaction cost theory of Williamson (1975; 1979) and the relational exchange theory of Macneil (1980), we develop a model indicating how economic and social related antecedents influence exchange governance in business services settings. In this study, we

also pay attention to the specific characteristics of business services. We indicate how specific service characteristics influence certain features of the service transaction and the relationship between those features and the different exchange governance mechanisms.

This study will give us an answer on the second research question:

RQ2: Which features of the service transaction have an influence on business services exchange governance?

In the third study (Chapter 4), exchange governance mechanisms in the security services sector are investigated more in detail. The respondents for this study are the buying organizations of several major security services suppliers in Belgium. Within this study we focus on two main research questions. First, we investigate how contractual and relational governance are interrelated and how both governance mechanisms have an influence on the performance of the buyer-seller interaction. Second, a number of features of the service transaction as determined in the second study are also incorporated. We especially focus on those features that are affected by specific service characteristics, i.e. asset specificity and uncertainty. We investigate how these antecedents influence contractual and relational governance of the security services exchanges.

This study will give us an answer on the third and fourth research question:

RQ3: How do certain features of the service transaction influence contractual and relational governance?

RQ4: How are contractual and relational governance related to performance in business services settings?

In the fourth study (Chapter 5), the impact of frontline employee behaviour on the performance outcomes is taken into account. The performance of a buyer-seller relationship in services settings is not only dependent on the governance of the exchange, but also on the service delivery by frontline employees. In a services setting, three types of frontline employee behaviour are identified: service delivery behaviour, internal influence behaviour, and external representation behaviour (Bettencourt and Brown, 2003). These types of behaviour can be considered as relatively more in-role or more extra-role behaviour. We investigate how these different types of employee behaviour are related to the performed productivity and quality by the employee. The respondents of this study are the security agents of one major security services supplier in Belgium.

This study will give us an answer on the fifth research question:

RQ5: How does frontline employee behaviour influence performance outcomes in a business services setting?

In the last chapter (Chapter 6), the results of the four studies are discussed. For each of the five research questions formulated, we give an answer based on the results. Next, we describe some limitations of this dissertation and we also provide several opportunities for future research. In conclusion, a number of managerial implications are formulated.

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Chapter II. Purchased Business Services Influence Downstream Supply Chain Members

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2.01 Abstract

Supply chain management and business networks have gained increased attention in services settings. The purpose of this research is to investigate the impact of purchased services by a service provider on the satisfaction of downstream supply chain members, i.e. end-users. The focus is on transaction-specific satisfaction as it provides in-depth information on specific satisfaction elements. To test the propositions, one business service provider purchasing a service from a supplier is selected. Data are collected by sending a web survey to the service provider's business customers. PLS is used to analyze the data as transaction-specific satisfaction is considered as a formative construct. PLS analyses indicate that the elements determining satisfaction with the supplier's service and those determining satisfaction with the service provider's service differ. Moreover, transaction-specific satisfaction of end-users with the supplier's service is positively related to transaction-specific satisfaction of end-users with the service provider's service. Furthermore, the strength of that relationship is influenced by the importance attached to the supplier's service by end-users. Two principal conclusions can be drawn: the position of the customer in the supply chain influences how the service delivery is evaluated and the relevance of service supply chains and business networks is confirmed. The relationships between supplier and provider and between provider and end-user are interconnected. The strength of that relationship interconnectedness is influenced by importance attached to the purchased service. Future research is needed to extend the findings of this study to other services settings.

2.02 *Introduction*

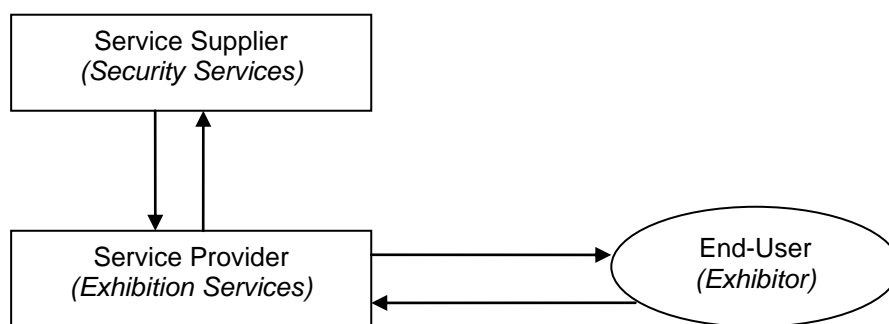
Supply Chain Management (SCM) has become an important way of enhancing competitive advantage and organizational performance in the domestic and global market place (Li et al., 2006). The increased attention paid to SCM in literature is an illustration of this effect (Zsidisin et al., 2000). In services, SCM also gains in importance because of evolutions such as outsourcing (Li et al., 2006). These extended supply chains have significant service components that need to be explored further (Roth and Menor, 2003a). While the service supply chain has been recognized as an intriguing research area (Roth and Menor, 2003b), research in SCM has been centered on manufacturing industries (Zsidisin et al., 2000) and only few service industries have been investigated in SCM research (Ellram et al., 2004; Mabert and Venkataramanan, 1998).

SCM has been defined as the integration of business processes from end customers through original suppliers that provides products, services and information that add value for customers (Cooper et al., 1997, pp. 1). With the growing importance of the service sector in our economies, the notion of service supply chain has obtained a more prominent role in contemporary operations management research (Akkermans and Vos, 2003). SCM in services deals rather with customer-supplier dyadic relationships than with the unidirectional movement of physical goods (Fitzsimmons and Fitzsimmons, 2006; Sampson, 2000). To understand the nature of these interfirm relationships, greater attention for the larger networks in which relationships exist is required (Wathne and Heide, 2004). However, still little is known on the impact of purchased business services along the supply chain and particularly on the influence on downstream supply chain members and their satisfaction. The importance of the supply chain vision in purchasing business services has been stressed by Stanley and Wisner (2001). In their research study, they investigated the link between external suppliers, internal customers and the quality delivered to external customers (Stanley and Wisner, 2001). However, as suggested by Dean and Kiu (2002), the impact of purchased business services on end-users should be further explored.

The service supply chain indicates that service providers have relationships with other service firms that contribute to satisfying the customer (Fitzsimmons and Fitzsimmons, 2006), as illustrated in Figure 1. The dependence of each firm's performance on the activities and performance of other firms has also been stressed by the Industrial Marketing and Purchasing

(IMP) Group (e.g., Batt and Purchase, 2004; Wilkinson and Young, 2002). As such, research studies should move from dyadic business relationships to triads and business networks (Anderson et al., 1994). The purpose of this study is to investigate the impact of services delivered to a service provider on the satisfaction of downstream supply chain members, i.e. the service provider's customers or end-users. This research study is set in a business services setting with end-users being firms, and not consumers, as service management research today should re-orientate itself towards business-to-business services (Johnston, 2005). More specifically, we focus on the support services setting, an important part of the business services sector (Lehtonen and Salonen, 2005). Support services can be distinguished from other business services by an essential characteristic: they are delivered on the premises of the buying firm, i.e. the service provider (Bröchner, 2001 cited in Lehtonen and Salonen, 2005), thus making interaction between the support services supplier and the end-user more likely.

Figure II-1: Service supply chain ^a



First, as we want to investigate the impact of purchased services on the satisfaction of downstream supply chain members, the satisfaction construct is discussed more in detail. Afterwards, propositions on the impact of purchased services are developed. The research method used to test the propositions is presented next. Based on PLS analyses, the research findings are reported. Finally, the main contributions of the paper are discussed.

(i) Transaction-specific satisfaction

In a business-to-business context, satisfaction can be defined as a positive affective state resulting from the appraisal of all aspects of a firm's working relationship with another firm

^a Based on Fitzsimmons and Fitzsimmons (2006)

(Geyskens et al., 1999). Previous research has indicated that satisfaction is related to loyalty (Lam et al., 2004), relationship continuity and enhancement (Selnes, 1998), and other behavioural intentions (Bolton et al., 2003). In a buyer-supplier channel system, buyer satisfaction is determined by supplier performance (Yilmaz et al., 2004) and forms an important indicator to assess the strength of current relationships with business customers (Rossomme, 2003). Two general conceptualizations of satisfaction exist in literature: transaction-specific satisfaction and overall satisfaction (Lam et al., 2004). Transaction-specific satisfaction relates to the customer's satisfaction with a discrete service encounter (Bitner and Hubbert, 1994, pp. 76-77) and thus refers to a particular exchange between buyer and seller, or an episode (Hakansson, 1982). Exchanges between two parties can lead to the build-up of long-term relations. Reactions to a particular exchange or episode are conditioned by the overall relationship existing between the two companies (Hakansson, 1982). Overall satisfaction, the second general conceptualization of satisfaction, refers to the customer's overall satisfaction with the organization based on all encounters and experiences with that particular organization (Bitner and Hubbert, 1994, pp. 76-77). The experiences gained in particular episodes aggregates to a total experience (Hakansson, 1982). Previous research has indicated that transaction-specific satisfaction and overall satisfaction are perceived differently by customers and thus can be empirically distinguished from each other (Jones and Suh, 2000).

In this research, we focus on transaction-specific satisfaction as this provides specific diagnostic information (Lam et al., 2004). Transaction-specific satisfaction depends on specific attributes of the service encounter and the related supplier performance (Shankar et al., 2003). Thus, transaction-specific satisfaction provides more in-depth information on the satisfaction elements responsible for the impact of purchased services along the supply chain. Previous research has included certain satisfaction elements, i.e. dimensions of customer satisfaction (Homburg and Rudolph, 2001), to better measure the varying experiences and perceptions of different customers (Rossomme, 2003). Relevant satisfaction elements of transaction-specific satisfaction in a business services setting are selected based on business, services and marketing literature. Especially the research of Homburg and Rudolph (2001), indicating a number of relevant satisfaction elements in a business manufacturing setting, is of interest here.

In services settings, reliability of the supplier plays a significant role: the majority of research studies confirm that reliability is the most critical aspect of service delivery (Zeithaml, 2000). A service supplier is reliable if the promised performance is delivered dependably and accurately (Schneider and White, 2004). According to Homburg and Rudolph (2001), reliability is also a facet of a satisfaction element in manufacturing processes. Next to reliability, other satisfaction elements will play a role. Because of the customer-supplier duality in service supply chains (Sampson, 2000), a second satisfaction element consists of the supplier's accessibility and ability to contact the supplier. These are a necessity to make timely and accurate communication between supplier and customer possible. Another important satisfaction element in industrial marketing is complaint handling (Homburg and Rudolph, 2001). A quick resolution to service failure is an important way to create satisfied and loyal customers (Fitzsimmons and Fitzsimmons, 2006). The interaction with the supplier's field and internal staff also plays a significant role (Homburg and Rudolph, 2001). Based on service profit chain and satisfaction mirror (Heskett et al., 1997), the attitude and behaviour of frontline service employees can have a "spillover" effect on customers' evaluation of the service delivered. Consequently, the interaction between service provider's personnel and customers has received increasing attention. The interaction with supplier personnel consists of technical skills, or personnel's expertise and knowledge, and interpersonal skills, or direct contact with the customers (Westbrook and Peterson, 1998). As such, based on business, services, and marketing literature, five satisfaction elements for transaction-specific satisfaction are incorporated in this study: reliability of the service supplier, accessibility and ability to contact the service supplier, complaint handling, supplier personnel's expertise and contact between supplier personnel and customer.

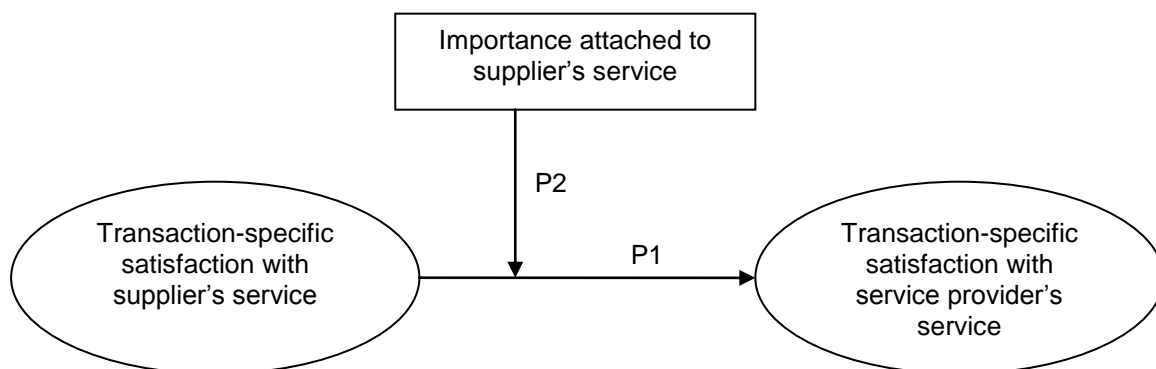
(ii) Impact of purchased business services

In general, business relationships are part of a network of relationships and thus interconnected (Ritter, 2000): if firm A supplies firm B and firm B supplies firm C, then interaction in either of the two relationships affects the other, sometimes marginally but often substantially (Hakansson and Ford, 2002). In the purchasing environment more emphasis has been placed on that interaction along the supply chain (Stanley and Wisner, 2001): decisions at one stage of the service supply chain can impact later (or earlier) stages of the chain (Sampson, 2000). As in manufacturing processes, it is not good enough to be 'locally optimal' in a service supply chain; each element of the supply chain should take into account players

up or down the chain (Sampson, 2000). Following the “garbage in, garbage out” principle, effective management of supplier quality is a critical element of quality management (Garvin, 1987). The research of Stanley and Wisner (2001) indicates that purchased supplies have an impact on the satisfaction of external customers, through internal service quality. As customers consider service providers responsible for the work of chosen suppliers (Sampson, 2000), service providers are also judged on the performance of those suppliers. As such, the relationship between service provider and end-user is influenced by the relationship between supplier and service provider. Based on the typology of Ritter (2000), we can speak of an assistance effect: through the existence of the relationship between supplier and service provider, the relationship between service provider and end-user is supported. Consequently, we propose that the service delivered by the supplier will have a positive impact on end-user’s satisfaction. We assume that the end-users’ satisfaction with the service provider’s service will be influenced by the end-users’ satisfaction with the supplier’s service (Figure 2). Therefore, we propose:

- P1: Transaction-specific satisfaction of end-users with the supplier’s service is positively related to transaction-specific satisfaction of end-users with the service provider’s service.*

Figure II-2: Research framework



Based on the firm’s value net (Brandenburger and Nalebuff, 1996), Ritter and colleagues (2004) state that relationships with suppliers can be an important source of competitive advantage when strategically valuable products or services are supplied. Other researchers also state that the criticality of or importance attached to a purchased service should be considered (Fitzsimmons and Fitzsimmons, 2006). Blumberg (1998) suggests that not only

the importance of the service to the buying organization but also the importance attached to the service by end-users should be incorporated. The purchasing decision and supplier's evaluation by the service provider should take into account whether or not end-users are affected by the outcome of the supplier's service delivery (Blumberg, 1998). Since considering a service as low or high in importance is a relative viewpoint (Fitzsimmons and Fitzsimmons, 2006), the end-users' opinion on importance of purchased service can differ. We propose that if end-users consider the supplier's service as high in importance, end-users' satisfaction with supplier's service will have a stronger effect on end-users' satisfaction with service provider's service than when end-users consider that service as low in importance (Figure 2). Therefore, we propose:

P2: The positive relationship between transaction-specific satisfaction of end-user with the supplier's service and with the service provider's service will be enhanced with increasing levels of importance attached by the end-user to the supplier's service (positive moderating effect).

2.03 Research Method

(i) Sample selection and data collection

This research study is set in a business services setting with end-users being firms, and not consumers. Because of possible effect of business specific variables, we chose to limit our investigation to end-users of one service provider (Selnes, 1998), consistent with prior research in customer satisfaction (Lam et al., 2004; Shankar et al., 2003). To obtain our research goal, we selected a service provider that clearly communicates to its end-users that a certain support service is delivered by an external supplier. Support services cover a broad variety of services including domestic services such as security services (Lehtonen and Salonen, 2005).

The chosen service provider offers exhibition space to its business customers: the service delivered encompasses everything needed to organize an exhibition such as location, parking lots, cash points, administrative services etc. The delivered service also incorporates security services that are purchased from an external supplier. The exhibitors are considered the end-users of both the exhibition space provided and the purchased security services (Figure 1).

The data was collected by a web survey. The service provider gave us a database containing the email addresses of those exhibitors which had contributed to one or more exhibitions during the last quarter of 2003. During the first quarter of 2004, an invitation to fill out the questionnaire was sent using a personalized email to increase response rate. The survey was sent in two waves. Of the 1074 emails sent, 201 exhibitors filled out a questionnaire, indicating an overall response rate of 18.72%. The questionnaires were analyzed anonymously.

(ii) Measurement development

Because of limited space available and respondents' lack of time, including several items to measure each of the constructs is not a viable alternative. Each satisfaction element of the transaction-specific satisfaction constructs is measured by one item, which is a reasonable compromise between the use of a full scale and the use of one primitive single item for measuring transaction-specific satisfaction (Homburg and Rudolph, 2001). Next to the transaction-specific satisfaction elements based on literature, one additional satisfaction element for end-user's satisfaction with the supplier is added, that is visibility. Interviews with the management of the service provider involved in the study revealed that visibility of the security agents to the end-users is of vital importance. Because of intangibility of the security services delivered, physical presence and visibility of a security agent is an important aspect of the delivered service for end-users (Blumberg, 1998).

Next to the transaction-specific satisfaction elements, overall satisfaction with the supplier's service (security service) and overall satisfaction with the business service (exhibition space provided) are also included in the survey. These are included to assess the validity of the related transaction-specific satisfaction constructs (cf. *infra*). The two overall satisfaction constructs and the importance attached by the end-user to the purchased security services are each assessed by one single item. In this research study, overall satisfaction is considered one-dimensional and directly accessible, and thus easy to express, for the respondent (Selles, 1998). Possible sources of overall satisfaction are already included in the satisfaction elements of transaction-specific satisfaction and thus can not be part of the overall satisfaction construct itself (Selles, 1998). For each statement, the respondents are asked to indicate their level of agreement on a seven-point rating scale, ranging from 1 "completely unsatisfied", to 7 "completely satisfied". The measurement items are illustrated in the appendix (Appendix A). In the survey, the sections approach is used to obtain a logical sequence of questioning: the

questions related to a particular service –either security or exhibition services- are grouped (Burns and Bush, 1998). Within each group of questions, the satisfaction elements are put on top as we want the respondent to think about the different aspects of the service (satisfaction elements) first, without being influenced by the general feeling of satisfaction (De Pelsmacker and Van Kenhove, 2002).

2.04 *Research Findings*

To assess construct validity and test the propositions, Partial Least Squares (PLS) appeared the most appropriate technique based on the properties of the data at hand. PLS makes no distributional assumptions (Chin, 1998) and it offers an alternative for incorporating formative as well as reflective indicators in one model (Diamantopoulos and Winklhofer, 2001). The program used for these analyses is SmartPLS Version 2.0.M2 developed by the Institute of Operations Management and Organization of the University of Hamburg (Germany). While PLS is the most appropriate technique for testing the propositions based on the data at hand, this statistical technique also has a number of disadvantages compared to other structural equation techniques. PLS is not covariance-based but variance-based and focuses more on prediction than on causality. Moreover, the measurement error can not be modelled in PLS. Other important limitations of PLS are that no proper overall goodness-of-fit measures exist for the models estimated (Hulland, 1999) and that the PLS procedure represents a certain bias in obtaining parameter estimates. This bias tends to manifest itself in higher estimates for component loadings and lower estimates at the structural level (Chin, 1998). PLS also estimates both factor loadings (i.e. measurement model) and structural paths (i.e. structural model) simultaneously (Chin, 1998). We therefore follow a two-step approach based on Hulland (1999). First, the measurement model is evaluated to assess the construct validity of the two transaction-specific satisfaction constructs. Then, the impact of end-users' satisfaction with the purchased service on end-users' satisfaction with the business service is assessed by evaluating the structural model (testing of propositions).

(i) Assessing construct validity

The satisfaction elements of transaction-specific satisfaction are conceptualized as formative (causal) rather than reflective indicators, as transaction-specific satisfaction is the result from

satisfaction with specific elements of the service encounter (Shankar et al., 2003). This is consistent with the research of Homburg and Rudolph (2001) in which the satisfaction elements have an impact on (or cause) the higher-order construct of satisfaction. Because of the formative structure of the transaction-specific satisfaction constructs, traditional validity assessments can not be used (Diamantopoulos and Winklhofer, 2001). Observed correlations among the construct's measures may not be meaningful (Diamantopoulos and Winklhofer, 2001) and as a consequence, assessment of item reliability and convergent validity become irrelevant (Hulland, 1999). Alternative methods to statistically assess the validity of formative constructs exist: linking the formative construct to another construct measured by means of reflective indicators and theoretically related to the formative construct (Diamantopoulos and Winklhofer, 2001). Previous research has indicated that transaction-specific satisfaction is an antecedent of overall satisfaction (Jones and Suh, 2000; Shankar et al., 2003): satisfaction with the last transaction will have a direct influence on overall satisfaction with the service (Parasuraman et al., 1994). Thus, the transaction-specific satisfaction construct can be considered as valid if it significantly enhances overall satisfaction and if the indicator coefficients of the transaction-specific satisfaction construct are significantly different from zero (Diamantopoulos and Winklhofer, 2001). As discussed above, satisfaction elements are used as indicators of transaction-specific satisfaction. Indicator coefficients which are not significantly different from zero, can not be considered valid measures. These contain information perceived redundant by the respondent, have high correlations with other indicators or are perceived irrelevant for the particular satisfaction construct and should therefore be excluded from the model (Bollen and Lennox, 1991; Diamantopoulos and Winklhofer, 2001).

First, construct validity of transaction-specific satisfaction of the end-user with the supplier's service is assessed. PLS analysis indicates that transaction-specific satisfaction with the supplier's service significantly enhances overall satisfaction with that supplier's service ($\beta=0.78$; $p<0.001$). The explained variance (R^2) of overall satisfaction with the supplier's service is 0.60. However, not all satisfaction elements have an indicator coefficient significantly different from zero ($p>0.10$). These indicators (satisfaction elements) should be deleted from the model before the propositions can be tested. Satisfaction elements such as reliability of the service supplier ($t=0.80$), complaint handling ($t=0.97$) and supplier personnel's expertise ($t=0.47$) are not significantly related to transaction-specific satisfaction with the supplier's service. On the other hand, the PLS analysis indicates that transaction-

specific satisfaction with the supplier's service is caused by accessibility and ability to contact the service supplier ($t=2.55$), visibility of the supplier's personnel (i.e. security agents) ($t=2.06$) and contact between supplier personnel and customer ($t=1.68$). These three satisfaction elements are retained to test the propositions.

Next, construct validity of transaction-specific satisfaction of the end-user with the service delivered by the service provider is assessed. Based on PLS analysis, transaction-specific satisfaction with the service provider's service significantly enhances overall satisfaction with that service ($\beta=0.81$; $p<0.001$). The explained variance of overall satisfaction with the service provider's service is 0.66. As in the previous assessment, not all indicator coefficients of the satisfaction elements are significantly different from zero ($p>0.10$). Accessibility and ability to contact the service provider ($t=0.74$) and contact between provider's personnel and customer ($t=1.20$) are not significantly related to transaction-specific satisfaction with the service provider's service. These satisfaction elements will be deleted before the propositions are tested. The other three satisfaction elements, reliability of the service provider ($t=2.10$), complaint handling ($t=2.30$) and expertise of the provider's personnel ($t=2.64$), are relevant formative indicators of transaction-specific satisfaction with the service provider's service. These results are consistent with the findings of Homburg and Rudolph (2001). In their research, the most important elements determining satisfaction in business manufacturing settings are satisfaction with order handling (incorporating reliability), satisfaction with complaint handling, and satisfaction with salespeople (incorporating knowledge and expertise of frontline personnel) (Homburg and Rudolph, 2001). The results also clearly illustrate discriminant validity of the two transaction-specific satisfaction constructs: the satisfaction elements determining satisfaction with the service provider's service and those determining satisfaction with the supplier's service are completely opposite to each other.

(ii) Testing of propositions

After validity assessment of the two transaction-specific satisfaction constructs, the impact of end-users' satisfaction with the supplier's service on the end-users' satisfaction with the service provider's service can be assessed. To assess the structural model, only those satisfaction elements that are significantly related to one of the transaction-specific satisfaction constructs are incorporated in the model (cf. *supra*). The correlation matrix

illustrated in Table 1 includes the relevant satisfaction elements for each transaction-specific satisfaction construct and the two overall satisfaction constructs.

To evaluate the propositions, the model is assessed in PLS using bootstrapping to test the statistical significance of the path coefficient between the two transaction-specific satisfaction constructs (Chin, 1998). The objective of PLS is to maximise variance explained, rather than fit, therefore no overall goodness-of-fit measures are available (Hulland, 1999). Prediction-orientated measures such as R^2 (variance explained) of endogenous constructs (Chin, 1998) are used to evaluate the structural model.

Table II-1: Correlation matrix ^a

| Transaction-specific satisfaction | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. |
|--|---------|-------------------|---------|---------|---------|---------|---------|------|
| with supplier's service | | | | | | | | |
| 1. accessibility of supplier | 1.00 | | | | | | | |
| 2. contact with supplier's personnel | 0.58*** | 1.00 | | | | | | |
| 3. visibility of supplier's personnel | 0.69*** | 0.52*** | 1.00 | | | | | |
| with service provider's service | | | | | | | | |
| 4. reliability of provider | 0.40*** | 0.22** | 0.38*** | 1.00 | | | | |
| 5. complaint handling | 0.31*** | 0.12 [†] | 0.33*** | 0.62*** | 1.00 | | | |
| 6. expertise of provider's personnel | 0.30*** | 0.24** | 0.31*** | 0.64*** | 0.59*** | 1.00 | | |
| Overall satisfaction | | | | | | | | |
| 7. with supplier's service | 0.68*** | 0.72*** | 0.64*** | 0.30*** | 0.28*** | 0.35*** | 1.00 | |
| 8. with service provider's service | 0.40*** | 0.28*** | 0.37*** | 0.70*** | 0.70*** | 0.69*** | 0.37*** | 1.00 |
| Mean | 4.66 | 4.75 | 4.93 | 5.54 | 5.77 | 5.29 | 4.83 | 5.70 |
| s.d. | 1.02 | 1.12 | 1.19 | 1.05 | 0.91 | 1.29 | 1.11 | 0.82 |

The impact of transaction-specific satisfaction with the supplier's service on transaction-specific satisfaction with the service provider's service is assessed (P1). The PLS regression reveals that the path coefficient of the proposed relationship is 0.39 and significant at the 0.001 level ($t=4.74$). The R^2 of transaction-specific satisfaction with the service provider's service is 0.15. Thus, we find support for P1: end-users' satisfaction with the service provider's service is in part explained by the delivery of the supplier's service.

A methodology to investigate moderating effects in PLS has been assessed by Monte Carlo simulations (Chin et al., 2003). However, this methodology has only been tested for

^a *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; [†] $p < 0.10$

constructs with reflective indicators, and not yet for constructs with formative indicators (Chin et al., 2003). Lack of a methodology to investigate moderating effects in PLS using formative indicators, the group comparison technique is used. Based on previous research testing moderating effects in PLS (Avolio, Howell, Sosik, 1999), the sample is split into two subsamples based on the importance attached by end-users to the supplier's service delivery: the first subsample is composed of data with a lower than the 6.00 median score ($n=65$) and the second subsample of data with a higher than the 6.00 median score ($n=51$). The second proposition (P2) can be assessed by comparing these two groups: if importance attached to the supplier's service by end-users increases, the impact of end-users' satisfaction with the supplier's service on the end-users' satisfaction with the service provider's service should increase. In the first group, considering the security services delivered not very important, the path coefficient of the proposed relationship is 0.30 ($t=2.45$) and the R^2 of transaction-specific satisfaction with the service provider's service is 0.09. In the second group, considering the security services delivered as very important, the path coefficient of the proposed relationship is 0.46 ($t=3.74$) and the R^2 is 0.22. These results indicate that, when the importance attached to the supplier's service increases, the strength of the relation between satisfaction with the supplied service and satisfaction with the provided service as well as the variance explained of satisfaction with the service provider's service expand. Based on the formula suggested by Chin (Keil et al., 2000), the results reveal a significant increase in path coefficient between the first group (not very important) and the second group (very important) ($t=11.60$). Consequently, we find support for P2: importance attached to the supplier's service has a positive moderating effect.

2.05 *Discussion*

This research study contributes to the literature on supply chain management and the larger network within which service providers operate. The relevance of the service supply chain and the effect of purchased services on downstream supply chain members are confirmed in this research study. The results indicate that services purchased from a supplier by a service provider influence downstream supply chain members and their satisfaction with the service provider. As such, this study empirically confirms relationship interconnectedness in a service supply chain setting. Cross-relational tasks, simultaneous management of several relationships and management of interconnections among relations, have been largely

neglected in literature (Ritter et al., 2004). This study underlines the importance of such cross-relational tasks and stresses the need for future research on this topic to enhance managing and being managed within a business network. Moreover, the supply chain vision for business services and the relationship interconnectedness hold even when the purchased services are considered less important by the downstream supply chain members. Thus, not only strategically valuable services should be incorporated when dealing with business networks. Also supplied services considered less important have an impact across the supply chain and should be considered when managing business networks.

In this research study, the focus is on external purchased support services to illustrate relationship interconnectedness and the impact of support services along the supply chain. However, not all business organizations purchase support services from an external supplier: support services –even security services- can be delivered internally. The link between satisfaction with support services and satisfaction with the core business delivery found in this research study could also be valid for the internal support services supplier. As a consequence, support services delivery – irrespective of its internal or external supplier – should be governed carefully because of its possible impact on the end-users' satisfaction with the service delivered.

This research study also contributes to the literature on customer satisfaction and its relevant determinants. Previous research revealed that the focus and placement of the customer in the supply chain can influence the way in which the delivered service is evaluated (Zsidisin et al., 2000). Dependent on the position in the supply chain, other satisfaction elements play a role in evaluating the service delivered. The validation of the transaction-specific satisfaction constructs illustrates this statement. In this study, the relevant satisfaction elements for the business service, purchased and consumed by the end-user, show great resemblance with the relevant satisfaction elements in business manufacturing settings (Homburg and Rudolph, 2001): reliability, complaint handling and expertise are related to core service elements. However, the relevant satisfaction elements for the supplier's service, consumed but not purchased by the end-user, are different. From the end-users' view, this supplier has a more upstream position in the supply chain than the service provider. The end-user has almost no direct contact with the supplier and might also have less knowledge on the service to be delivered. Consequently, the quality of the supplier's service in terms of reliability, expertise, and complaint handling might be harder to judge for the end-user. Therefore, the end-user will

look for other, more ‘tangible’ (easier to judge) evidence of the quality delivered (Berry and Bendapudi, 2003) such as the visibility of the security agents and the direct contact with the agents. These indicators can be observed directly by the end-user and are thus easier to evaluate. Because of the impact of purchased services along the supply chain and relationship interconnectedness, the service provider purchasing these services should be aware of these additional indicators of quality.

In this research study, several opportunities for further research are revealed. Research should not be limited to individual dyadic relationship between firms. Relationship interconnectedness and the larger network in which relationships exist should be further explored. Especially more emphasis should be placed on the development of measurement instruments which indicate the impact of relationship interconnectedness and its scope. Moreover, not only key business services or strategically valuable services should be investigated as services considered less important might also affect downstream supply chain members. Future research is needed to explore and generalize the findings and gain in-depth understanding on service supply chains. In this research study, the impact along the supply chain was empirically tested for security services purchased by a service provider. For other purchased services, the relevant satisfaction elements can differ: for example, visibility of frontline employees to end-users could have less impact in other services settings. Future research could provide more insight into the causal indicators (or satisfaction elements) of transaction-specific satisfaction for business services. From the viewpoint of end-users, the discrepancy in satisfaction elements between services purchased from a service provider and those delivered to the service provider by a supplier should be further explored. Moreover, certain limitations of this study like the one-item measures for satisfaction elements and overall satisfaction should be dealt with in future research. We have also noted that the statistical technique used, PLS, has certain limitations.

Managerial implications for both the service provider and the service supplier can be deduced. First, the results indicate that service providers should pay more attention to services purchased from a supplier and to that supplier’s selection and evaluation, even when these services are considered less strategically valuable. In the service supply chain, decisions at one stage can impact later stages of the supply chain (Sampson, 2000): service providers are considered responsible for the work of chosen suppliers and for choosing other suppliers when necessary. Management practices such as quality assessments or relationship

governance mechanisms can help the service provider to better manage upstream supply relationships and thus increase the satisfaction of downstream supply chain members. Business service providers should also be aware of relationship interconnectedness and the impact of the network in which the relationships exist. Changes in the interaction with the supplier can have an effect on other relationships in the network and thus also on the end-user. Moreover, the service provider should enable and encourage the supplier to deliver the service requested by the end-user. For example, in this study the service provider should enable the security agents to take up a position with high visibility to the end-users. To ensure this high visibility, the provider's premises might need to be adjusted. The results of this study also indicate some managerial implications for the service supplier. The service supplier should not only pay attention to the requests of the buyer, but also to the needs of the end-user in order to enhance customer satisfaction. Based on Berry and Bendapudi (2003), the service supplier should provide "evidence" to the end-user on the quality of the service delivered. In this study, certain measures to enhance visibility of the security agent are already taken by the service supplier: for example, wearing a uniform is obligatory. Some additional actions to perform evidence management can still be taken. Based on the relevant satisfaction elements of the service supplier, these measures should be mainly related to human resource management. Hiring the right people and providing regular training are needed to assure and enhance accessibility and interpersonal skills of the security agents.

2.06 References

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Chapter III. How to Govern Business Services Exchanges: Contractual and Relational Issues

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3.01 Abstract

With firms concentrating on core competencies, more emphasis has been placed on outsourcing and the dealing with external sourcing agents. This has led to a stronger academic focus on buyer-seller exchanges and the corresponding mechanisms for governing these exchanges. This paper gives an overview of previous research investigating the exchange governance phenomenon based on transaction cost theory or cooperative interorganizational relationships. The results reveal that few research studies have investigated the overall picture of exchange governance, including both contractual and relational governance and taking into account antecedents as well as performance outcomes of the governance mechanisms involved. Moreover, despite the service-dominant logic shift, limited attention is given to specific service characteristics and their impact on exchange governance. In this paper, we attempt to meld economic and social related antecedents into a model with regard to exchange governance in business services settings. Contractual and relational governance issues and their impact on performance outcomes are also considered. The resulting model indicates that to efficiently govern business services exchanges, more emphasis should be placed on behavioural uncertainty, human and process asset specificity and contractual governance. We conclude the paper by discussing several directions for future research.

3.02 Introduction

In today's turbulent marketplace, firms are increasingly concentrating on their core competencies to remain competitive. Consequently, these firms resort to outsourcing those activities that fall outside their own domain of expertise. Because of the increased need for dealing with suppliers and other external sourcing agents, a strong focus on buyer-seller exchanges and the corresponding mechanisms for governing these exchanges has emerged.

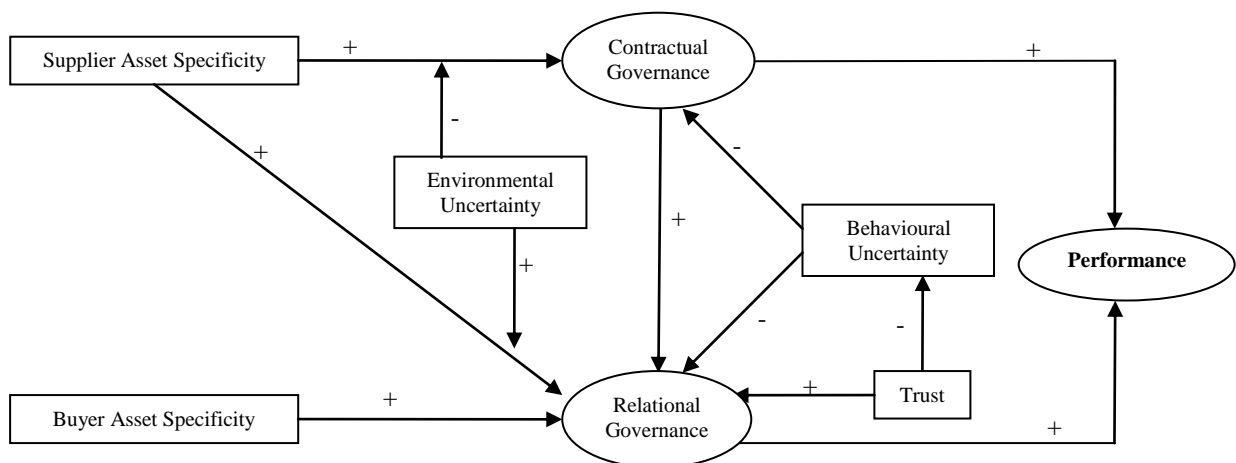
Governance refers to the formal and informal rules of exchange between partners (Griffith and Myers, 2005; Nickerson *et al.*, 2001; Wathne and Heide, 2004). In general, two types of governance strategies (Griffith and Myers, 2005) have been studied: economic governance strategies such as contracts (Lusch and Brown, 1996) and relational governance strategies such as relational norms (Heide and John, 1992). While initial research on buyer-seller relationships mainly treated these exchanges as discrete transactions and not as ongoing relationships (Dwyer *et al.*, 1987), subsequent studies have placed more emphasis on relationship-based rather than transaction-based marketing perspectives (Sharma and Pillai, 2003). While both these perspectives have their merits, Griffith and Myers (2005) suggest that further research is needed to provide an in-depth and extensive understanding of buyer-seller exchange governance mechanisms and the relationship between these governance strategies.

The objective of this paper is to investigate the governance mechanisms in buyer-seller exchanges, the relationship between these mechanisms and the corresponding impact of these governance mechanisms on the performance of the relationship. In particular, we focus on business exchanges in a services context. We do this for the following reasons. The service sector continues to grow in our economies and the biggest challenge in marketing today is re-orienting the focus on services (Vargo and Lusch, 2004), especially in business-to-business settings (Johnston, 2005). This recent shift towards a more service-centred view has intensified the need for research on exchange governance and governance of business services exchanges. Because of different issues and success factors in service industries, we simply do not know whether findings from previous studies in manufacturing settings extend to the service sector (Judge and Dooley, 2006). First, exchange governance and its performance implications might be different in services compared to manufacturing settings. Because of the intangible nature of services, the writing of contracts is more challenging (Fitzsimmons and Fitzsimmons, 2006) and relational structures such as relational norms will necessarily emerge (Vargo and Lusch, 2004). Second, the findings of previous research indicate that manufacturing and services firms seem to respond differently to determinants of exchange governance such as asset specificity and uncertainty (Brouthers and Brouthers, 2003). As services tend to be more people-oriented, knowledge and experience will play a more fundamental role than goods in service exchanges (Vargo and Lusch, 2004). Moreover, because of the intangible nature of services, evaluation of the services being delivered is more difficult as these are not subject to close scrutiny (Fitzsimmons and Fitzsimmons, 2006). Third, current research has not completely investigated the overall picture of exchange

governance, including both social and economic antecedents, contractual and relational aspects, and performance consequences. Furthermore, little attention has been paid to the impact of specific service characteristics. Consequently, the governance of business exchanges requires further investigation, especially in a business services setting.

In this paper, we address the concerns stated above by proposing a model that identifies the process by which firms use contractual and relational governance to manage relationships between buying organizations and service suppliers. Antecedent factors that influence the type of governance mechanisms used and the subsequent impact of these governance mechanisms on performance outcomes of the buyer-seller relationships in business services settings are identified. The model with the incorporated constructs and their interrelationships is illustrated in Figure 1.

Figure III-1: Business services exchange governance



The following section of the paper is devoted to further discuss the theoretical background of the shift from transaction to relational exchange in business-to-business services exchanges. Governance mechanisms for these business exchanges are subsequently discussed. We then propose a model based on these governance mechanisms and incorporate relevant antecedents and consequences of these governance mechanisms in business services settings. Finally, theoretical and practical implications of the paper are discussed, along with directions for future research.

3.03 *Theoretical Background*

(i) From transaction to relational exchange

Ever since the work by Williamson (1979; 1985) on the governance of transactions, Transaction Cost Economics (TCE) has become one of the leading perspectives in the field of management and the study of organizations (David and Han, 2004). The focus of TCE is on transactions and especially on their analysis and how efficiency can be achieved. The central claim is to handle transactions in such a way as to minimize the costs involved in carrying them out (David and Han, 2004). A transaction is defined by Williamson (1985) as the transfer of a good or a service between separated units. Transactions are the units of exchange (Williamson, 1991) and are characterized by transaction-specific attributes on which the choice between different forms of alternate governance modes depends. These attributes include asset specificity, uncertainty, and frequency (cf. Williamson, 1985). These transaction-specific attributes in turn are related to the two main assumptions of human behaviour in TCE (Rindfleisch and Heide, 1997): bounded rationality and opportunism. Bounded rationality assumes that decision makers have limited rationality because of constraints on their cognitive capabilities. While decision makers may be willing to act rationally, limited information processing and communication causes bounded rationality (Rindfleisch and Heide, 1997). Due to the presence of uncertainty, bounded rationality plays a more profound role in the exchange setting. The second assumed human behaviour in TCE, opportunism, supposes that decision makers may be seeking to serve their self-interest: “self-interest seeking with guile” (Williamson, 1985). This relates to behaviours such as lying, cheating or other forms of violating the agreement. The extent to which specific assets support the transaction causes opportunism-related behavioural problems because of the increased safeguarding problem (Rindfleisch and Heide, 1997).

The ‘discriminating alignment hypothesis’ of TCE states that transactions which differ in attributes are aligned with appropriate governance mechanisms, i.e. those structures which minimize the associated transaction costs (Williamson, 1991). Whether economic agents will rely on a particular form of governance depends on the attributes of the transactions to be realized and the associated transaction costs (Aubert et al., 1996). The governance mechanisms in TCE are originally limited to two alternate forms: market governance and hierarchy. Market governance relates to a market-based exchange with the market as governance mechanism. Market transactions are characterized by legal, formal terms and hard

bargaining (David and Han, 2004). Hierarchy relates to internal organization or vertical integration with the firm as governance mechanism (Rindfleisch and Heide, 1997).

Previous research on business exchanges has been mainly founded on unilateral approaches to buyer-seller relationships such as market or hierarchy (Joshi and Stump, 1999). Nevertheless, over the past two decades, marketing has been transitioning from a transaction focus to more of a relationship focus (Vargo and Lusch, 2004) and the findings from previous research indicate that TCE only provides limited guidance concerning suitable exchange governance for interfirm relationships (Pilling et al., 1994). As a result, intermediate modes of governance – distinct from the traditional modes of market and hierarchy – have been proposed (Zaheer and Venkatraman, 1995). Such governance modes have been termed as hybrids (Williamson, 1991) and their strategic importance is growing (Zaheer and Venkatraman, 1995). In today's business world, the concern is no longer the unilateral governance of transactions, but the bilateral governance of relational exchanges (Joshi and Stump, 1999). In hybrids or bilateral governance modes, the exchange partners' identity gains in importance because replacing the other entails considerable costs (David and Han, 2004). As a result, the exchange partners will work together to restrain opportunism (Joshi and Stump, 1999).

Because of the shift from unilateral governance of transactions towards the bilateral governance of relational exchanges, researchers (e.g., Brown et al., 2000) have combined the principles of TCE (Williamson, 1985), the principles of Relational Exchange Theory (RET) (Macneil, 1980), and relational governance to better understand buyer-seller interchange. RET mainly focuses on exchange relationships with significant levels of relational behaviour between the exchange partners (Pilling et al., 1994). Consequently, the unit of analysis is no longer the transaction itself, but the relationship established between supplier and buyer, based on the transactions taking place.

(ii) Governance of exchange

In general, two types of governance strategies (Griffith and Myers, 2005) have been studied: economic governance strategies such as contracts (Lusch and Brown, 1996) and relational governance strategies such as relational norms (Haugland and Reve, 1993; Heide and John, 1992). Cannon, Achrol, and Gundlach (2000) focused on legal contracts and relational norms

as the two common governance mechanisms used as building blocks for complex structures of governance.

Contractual governance is considered a formal, legal and economic governance strategy (Ferguson et al., 2005; Lusch and Brown, 1996). This governance mechanism is defined as the degree to which the formal contract is currently established in existing business exchanges (Ferguson et al., 2005). It tends to depend more heavily on the principles of contract law (Lusch and Brown, 1996), although the impact of inter-firm contractual law regulation on governance mechanisms is not part of this research (see Arrighetti et al., 1997). In this research, contractual governance refers to explicit, formal, and usually written contracts. Contracts are detailed, binding legal agreements that specify the obligations and roles of both parties in the relationship. As such, contracts can be considered as substitutes for formal governance mechanisms of hierarchy or integration in business exchanges (Ferguson et al., 2005; Gundlach and Achrol, 1993; Heide, 1994; Lusch and Brown, 1996). Several researchers have delineated the importance of examining contracts (Brown et al., 2006; Lusch and Brown, 1996) and suggest that if contracts are misused, performance outcomes and behavioural relations among buyers and sellers may be harmed.

Relational governance is defined as the strength of the social norms present in the exchange and has often been referred to as relationalism (Ferguson et al., 2005). Relationalism points not only to the relationship orientation of the exchange partners, but also to the emphasis placed by them on exchange behaviours or norms as indicators of closeness in buyer-seller relationships (Macneil, 1980). Relational norms are defined as the bilateral expectations that exchange partners will act in ways that assist each other during the course of the relationship (Joshi and Campbell, 2003). As such, relational governance can be considered rather informal and social, compared to contractual governance (Achrol and Gundlach, 1999). Dwyer, Schurr, and Oh (1987) introduced Macneil's (1980) relational contract theory and its behavioural concepts into the marketing literature on buyer-seller relationships. Ever since, it is generally accepted that interfirm activities can be managed using relational elements or norms (Weitz and Jap, 1995; Zhang et al., 2003). The importance of relational norms in business services settings has been illustrated by Paulin, Perrien, and Ferguson (1997). Recently, relational governance strategies such as relational norms have drawn increased academic and managerial focus (Griffith and Myers, 2005).

Both contractual and relational governance are included in this paper as the interesting questions about these governance mechanisms have less to do with their single effect than with their interaction effect (Achrol and Gundlach, 1999). There have been studies on the antecedents of contractual and/or relational governance (e.g. Claro et al., 2003; Poppo and Zenger, 2002), the interaction between both governance mechanisms (e.g. Lusch and Brown, 1996) and its impact on performance (e.g. Poppo and Zenger, 2002; Styles and Ambler, 2003). Table 1 gives an overview of empirical studies on exchange governance and the incorporated constructs. This table illustrates that still little is known on the overall picture taking into account both contractual and relational governance and their determinants and outcomes, especially in business services settings. Therefore, a model incorporating relevant antecedents and consequences of the contractual and relational governance interplay is developed to gain more in-depth understanding of exchange governance in a business services context.

3.04 *Model of Governance Mechanisms*

In this research, we look at the interplay between contractual and relational governance and their antecedents and outcomes in business services exchanges. We assume that the exchange partners are already involved in the relationship, past the awareness phase and before the dissolution phase (Dwyer et al., 1987) and that they are not interacting on a discrete or one-time basis. The performance of the relationship during the exploration, expansion, and commitment phase (Dwyer et al., 1987) will determine whether or not both parties are willing to continue or enhance the relationship. The model as illustrated in Figure 1 proposes relationships between antecedents and governance mechanisms and between these governance mechanisms and outcomes. This is the traditional way in which channel behaviour is presented (Lusch and Brown, 1996). However, when interfirm relationships are considered as a developmental process in a longitudinal sense (Ring and Van de Ven, 1994), performance outcomes can cause feedback and have a recursive relationship with relational or contractual governance. The governance of the exchange can also have a recursive relationship with certain antecedents. Therefore, we note that this model is a partial model and can not represent all possible antecedents and consequences of exchange governance in business services settings. In this research, the governance of business services exchanges is discussed at a certain stage in the buyer-seller relationship: the contract has been established *ex ante* and

Table III-1: Overview of constructs used in the literature on exchange governance^{a b c}

| Empirical Study | Research Design | Country | Type of Exchange | AS | | | UNC | | | CG | RG | Trust | Perf |
|--------------------------|-----------------------------|-----------------------|------------------|-----|-----|-----|-----|-----|-----|----|----|-------|------|
| | | | | Gen | SAS | BAS | Gen | ENV | BEH | | | | |
| | Sample (Response rate) | | | | | | | | | | | | |
| Aulakh et al. (1996) | Survey 652 S (39.4%) | US | Export | X | | | | X | | | X | X | |
| Bello et al. (2003) | Survey 402 S (72%) | US | Export | | | | | X | | | X | X | |
| Cannon et al. (2000) | Survey 2,014 B (23%) | US | Various | | | X | | X | X | X | | X | |
| Claro et al. (2003) | Survey 598 S (29%) | Net | Distribution | | X | | | X | | X | X | X | |
| Eriksson, Sharma (2003) | Survey 145 S (95%) | Swe | Banking | | | | | X | X | X | | | |
| Ferguson et al. (2005) | Interview 160 dyads | US, Can, Mex | Banking | | | | | | | X | X | X | |
| Gao et al. (2005) | Suvey 2,000 B (25.4%) | US | Product | | | | | | X | | X | | |
| Griffith, Myers (2005) | Survey 450 B (20.4%) | US | Import | | | | | | | | X | X | |
| Gundlach, Achrol (1993) | Simulation 62 dyads | | Distribution | | | | X | | | X | | | |
| Haugland, Reve (1993) | 22 dyads farmer/exporter | Nor, US, UK, Fra, Ger | Distribution | | | | | | | | X | X | |
| | 17 dyads exporter/importer | | Export | | | | | | | | | | |
| Heide, John (1990) | Survey 579 B (30%) | US | Product | | X | X | | X | X | X | | | |
| Heide, Miner (1992) | Survey 579 B (27%) | US | Product | | | | | | X | X | | | |
| | Survey 96 S (62%) | | | | | | | | | | | | |
| Johnston et al. (2004) | Survey 164 dyads | Can | Various | | | | | | | | X | X | |
| Joshi, Campbell (2003) | Survey 1,063 B (20.8%) | Can | Product | | | | | X | | | X | | |
| Joshi, Stump (1999) | Survey 611 B (30%) | Can | Product | | X | X | X | | | X | X | | |
| Joskow (1987) | 277 coal contracts | US | Product | X | | | | | X | | | | |
| Lusch, Brown (1996) | Survey 3,225 B (28.8%) | US | Distribution | | | | | | X | X | | X | |
| Noordewier et al. (1990) | Survey 483 B (31%) | US | Product | | | | | X | | X | | X | |
| Paulin et al. (1997) | Interview 61 dyads | Can | Banking | | | | | | | | X | X | |
| Poppo, Zenger (2002) | 285 outsourced services (B) | US | IS | X | | | | | X | X | | X | |
| Siguaw et al. (1998) | Survey 2,254 B&S (36.9%) | US | Distribution | | | | | | | | X | X | |
| | 179 dyads | | | | | | | | | | | | |
| Zaheer et al. (1995) | Survey 1,000 B (33%) | US | Insurances | | X | X | | | X | | X | X | |
| Zhang et al. (2003) | Survey 623 S (22.6%) | US | Export | | | | | | | | X | X | |

^a B: Buyer is respondent; S: Supplier is respondent^b AS: Asset Specificity; Gen: General asset specificity; SAS: Supplier Asset Specificity; BAS: Buyer Asset Specificity; UNC: Uncertainty; Gen: General uncertainty; ENV: Environmental Uncertainty; BEH: Behavioural Uncertainty; CG: Contractual Governance; RG: Relational Governance; Trust: Trust; Perf: Performance^c Can: Canada; Fra: France; Ger: Germany; Mex: Mexico; Net: The Netherlands; Nor: Norway; Swe: Sweden

relational governance is still developing. The exchange partners have invested in the establishment of the contract and the current execution of the commitments made will determine the agreement's renewal, expansion or dissolution in the future.

(i) Governance mechanisms and their performance outcomes

Buyer-seller exchanges in business services markets are governed through both formal and informal agreements (Ivens, 2005). The use of contracting for service delivery is extensive and rising (Dean and Kiu, 2002). Explicit, written contracts between buyer and seller are established in the commitment stage (Ring and Van de Ven, 1994) and formally state how parties to the contract should behave over time (Lusch and Brown, 1996). During the execution of the contract, the content of the contract mainly remains unchanged until the next negotiation phase (Ring and Van de Ven, 1994). Relational governance emerges from the values and agreed-upon processes found in the relationship and further develops within the relationship (Macneil, 1980; 1983). Thus, at a certain point in an interfirm exchange, the formal agreement or contract has been established *ex ante* and the informal agreement or relational governance continues to develop over time.

Interaction between contractual and relational governance. The interaction between contractual and relational governance and how both governance mechanisms relate to performance have been investigated in previous research. Based on these results, two schools of thought can be distinguished (Lazzarini et al., 2004; Wuyts and Geykens, 2005): the substitution and the complementarity view.

The complementarity view argues that contracting methods and relational issues are supposed to complement each other and thus should be considered simultaneously (Möllering, 2002). This school of thought is based on the idea that contracts facilitate the self-enforcement of informal agreements such as relational governance (Lazzarini et al., 2004). Contractual specifications are even presumed to increase the occurrence of relational behaviour between the exchange partners. Based on TCE and contract theory, the established contract limits the possibilities for opportunistic behaviour (Woolthuis et al., 2005). Explicit contracts formally state how parties to the contract should behave over time (Lusch and Brown, 1996). Moreover, the punishments specified in the contract reduce the short-time gains of opportunistic behaviour and heighten the gains from cooperative behaviour (Poppo and

Zenger, 2002). In a business service exchange, Ivens (2005) states that more formal and detailed contracts between buyer and seller increase the likelihood that relational behaviour is performed. Thus, according to the complementarity view, contracts reduce the gains of short-term opportunism through incentives or punishments, thereby increasing the value of honouring more informal dealings such as relational governance (Lazzarini et al., 2004; Poppo and Zenger, 2002). Several researchers (Eriksson and Sharma, 2003; Wathne and Heide, 2004) state that contracts are only partly helpful and that the development of relational governance is even a necessity.

Nonetheless, in accordance with the substitution view (Lazzarini et al., 2004), certain social scientists claim that contracts may be detrimental to the development of relational behaviour (Woolthuis et al., 2005). This school of thought indicates that the presence of one governance mechanism may hinder or even preclude the emergence of the other (Paswan et al., 1998; Poppo and Zenger, 2002): the existence of a contract in a relationship may undermine the development of relational norms (Dyer and Singh, 1998; Macaulay, 1963). Two reasons for the negative relationship between contract and relational governance (Gundlach and Achrol, 1993) are mentioned (Woolthuis et al., 2005). The first reason states that drawing up a contract is interpreted as a sign of distrust (Bradach and Eccles, 1989). However, the research of Roxenhall and Ghauri (2004) demonstrates that contracts are mostly drawn up for establishing business relationships, thus confirming the willingness of both parties to engage in the exchange. Moreover, business services exchanges are often provided in the form of long-term relationships (Ivens, 2005) indicating the relational orientation of both parties. The second reason states that the active use of the contract may evoke opportunism and thus hinder the development of relational behaviour (Woolthuis et al., 2005). On the other hand, Roxenhall and Ghauri (2004) claim that contracts are merely established to determine the business relationships and are hardly ever established to prove what was agreed upon or to enforce the agreement.

Empirical research in business services exchanges has disconfirmed the substitution view (Poppo and Zenger, 2002), while the complementarity of contracts and relational governance has not been disconfirmed (Bennett and Robson, 2004; Poppo and Zenger, 2002). Therefore, the complementarity of contractual and relational governances is assumed in business services exchanges and thus, we posit a positive link between contractual and relational governance.

In a longitudinal sense, recursive relationships between relational governance and formal contracts may emerge. In a subsequent negotiation phase, relational behaviour may promote the refinement of the formal contract to complement its adaptive limits (Poppo and Zenger, 2002). However, in this paper, the focus is on the governance of the current exchange, excluding the subsequent negotiation between buyer and seller.

Performance outcomes of exchange governance. Considering relational and contractual governance as complements indicates that the combined use of both governance mechanisms provides more efficient outcomes than the use of either governance mechanism in isolation (Lazzarini et al., 2004; Poppo and Zenger, 2002). When both governance mechanisms are used simultaneously, advantage can be taken of their differential impacts to enhance their individual outcomes (Brown et al., 2000; Weitz and Jap, 1995). Based on the complementarity view (Lazzarini et al., 2004), contractual and relational governance are each assumed to have a positive impact on performance outcomes, also in a business services setting (Poppo and Zenger, 2002). While the positive influence of relational governance on performance has been frequently assessed and confirmed (e.g. Bello et al., 2003; Ferguson et al., 2005), the positive link between contractual governance and performance outcomes has been challenged by certain researchers. They state that exchange performance might decrease when detailed contracts are used and relational governance is not well developed (Cannon et al., 2000; Ferguson et al., 2005). Nonetheless, Cannon, Achrol and Gundlach (2000) had mentioned certain advantages of contractual governance: they pointed out that careful contract negotiation serves as a foundation for and consequently act as a complement to relational governance. However, those research studies did not investigate possible positive effects of the ex ante established contract on the development of relational governance. We propose that the establishment of a detailed contract ex ante enhances the development of relational governance in business services settings. Thus, when the interfirm exchange is governed by a detailed contract, low levels of relational governance, and the supposed negative impact of contractual governance on performance, can not occur. This is supported in the study of Ferguson, Paulin, and Bergeron (2005) in which a significant positive effect between contractual governance and performance was found in stead of the supposed negative relationship for business clients in commercial banking. Because of the barriers against opportunistic behaviour created by the contract, performance outcomes of the exchange will be enhanced (Judge and Dooley, 2006). Moreover, a written contract makes the intangible service more tangible, facilitating the management of the required service delivery and thus

resulting in a higher performance. Therefore, in a business services setting, both contractual and relational governance will be positively related to performance outcomes.

(ii) Antecedents of governance mechanisms

Based on Griffith and Myers (2005), both social and economic governance mechanisms should be incorporated to investigate buyer-seller exchanges. Accordingly, antecedents from both the sociological and economic perspective should be included when investigating exchange governance. In the governance of exchange relationships, non-economic factors – primarily represented by trust – are complementary to economic factors (Zaheer and Venkatraman, 1995). TCE indicates three economic factors: frequency, asset specificity, and uncertainty (Williamson, 1985). Frequency refers to a recurring instead of an occasional or one-time transaction. Previous research has devoted limited attention to the frequency attribute (David and Han, 2004; Rindfleisch and Heide, 1997). As we assume that the exchange partners are not interacting on a discrete or one-time basis, frequency is not further considered.

Previous research suggests that the impact of transaction attributes on governance modes or performance outcomes is not always straightforward (Bello et al., 2003). A first explanation could be the diverse definition and operationalization of these attributes (David and Han, 2004). Moreover, the conceptualization of a construct in manufacturing settings might be inadequate for services settings (Zaheer and Venkatraman, 1995). A second explanation could be the different response of manufacturing and services firms to certain transaction-specific attributes (Brouthers and Brouthers, 2003; Murray and Kotabe, 1999). Compared to manufacturing settings, emphasis should be more on people and less on tangible aspects of the delivery in business services settings.

Asset specificity. Asset specificity is defined by Williamson (1991) as the degree to which the assets used in support of the transaction can be redeployed to alternative uses without sacrifice of productive value. Asset specificity is considered the most important transaction attribute by Williamson (1985) and is the most frequently considered attribute in empirical research dealing with TCE (David and Han, 2004). Several research studies (Fink et al., 2006; Heide and John, 1990; Poppo and Zenger, 2002) also use asset specificity as a proxy for

organizational dependence defined as the degree of external control of the organization (Pfeffer and Salancik, 1978).

Asset specificity exists in a number of specific dimensions (Williamson, 1975) of which physical and human specificity most frequently occur (Grover and Malhotra, 2003). Physical asset specificity refers to assets for which the specificity is attributable to physical features (Williamson, 1985) and incorporates customized machinery, tools and equipment (Heide and John, 1990). Given the shift towards a service-dominant logic (Vargo and Lusch, 2004) and the focus on business services exchanges, physical asset specificity appears less relevant in the business-to-business services world. Based on the intangible nature of services and the increased importance of process and knowledge, we focus on business process asset specificity which incorporates both human and procedural asset specificity (Zaheer and Venkatraman, 1995). Human asset specificity relates to the learning-by-doing concept or the chronic problems of moving human assets (Williamson, 1985). It deals with the degree to which skills, knowledge, training and experience of the personnel are specific to the requirements of the other firm (Claro et al., 2003; Poppo and Zenger, 2002; Walker and Poppo, 1991; Zaheer and Venkatraman, 1995). Procedural asset specificity relates to the extent to which a firm's workflow and processes are customized in line with the requirements of the other party (Zaheer and Venkatraman, 1995). The process to deliver maintenance services to a particular buyer organization can for example be adjusted to that customer's specific machinery and its specific location at the customer's premises. However, the explicit use of procedural asset specificity is limited in research studies on exchange governance in business settings. Nonetheless, it is considered as a powerful form of transaction-specific assets in service firms (Zaheer and Venkatraman, 1995).

Transaction specific investments can be made by either the buyer or the seller (Heide and John, 1990). While most studies incorporate only one of these types of asset specificity (Claro et al., 2003; Heide and John, 1992), both TCE theory and empirical results indicate the relevance of both in the governance of interfirm exchanges (Stump and Heide, 1996; Williamson, 1983). Specific investments made by the supplier are referred to as supplier asset specificity, while specific investments made by the buyer are referred to as buyer asset specificity or reciprocal investments. First, the impact of supplier asset specificity on exchange governance is discussed; afterwards, reciprocal investments are considered.

The theory of TCE suggests that as asset specificity increases, hybrids and hierarchies are preferred over markets and at high levels of asset specificity, hierarchy becomes the preferred governance mechanism (David and Han, 2004). Put differently, a higher degree of asset specificity requires greater safeguards included in the exchange to guard against opportunistic behaviour. As a result, the exchange governance should move away from the market towards more specialized forms of governance because these minimize transaction costs (Williamson, 1985). Contracts – as substitutes for hierarchy (Heide, 1994) – have been established *ex ante* and can be considered as the first safeguard against opportunism. The higher the asset specificity, the more complex the established contracts (Dyer, 1997) and the more long-term contracts will be preferred (Aubert et al., 1996; Joskow, 1987). Complex contracts containing remedies for anticipated contingencies are crafted to better safeguard the investor of specific investments against opportunism (Poppo and Zenger, 2002). When asset specificity increases, transaction costs are presumed to increase (Williamson, 1985), but by establishing more complex contracts certain costs associated with asset specificity will be attenuated (Dyer, 1997). For example, more complex contracts eliminate or at least attenuate the bargaining over profits from transaction-specific assets (Dyer, 1997). Past and future transaction-specific assets and their safeguarding difficulties are anticipated in the *ex ante* established contract by creating a detailed contract and specifying clearly the roles and obligations of each party (in the absence of environmental uncertainty – cf. *infra*), as confirmed by the research of Poppo and Zenger (2002).

A number of researchers (e.g. Claro et al., 2003; Heide and John, 1990) have investigated the impact of supplier asset specificity on relational governance, but without incorporating contractual governance and its effect on relational governance. They assume a positive relationship between asset specificity and relational governance based on TCE theory: asset specificity increases switching costs and thus, relational governance is enhanced as a safeguard against opportunistic behaviour. However, to investigate the impact of supplier asset specificity on exchange governance, other safeguards against opportunism like contractual governance and its interplay with relational governance were not incorporated in their research design. Consequently, the impact of supplier asset specificity on relational governance in the presence of an *ex ante* established contract has not yet been thoroughly investigated. Based on TCE theory, we posit that contracts are established *ex ante* as a safeguard against opportunistic behaviour caused by supplier asset specificity. However, because of limited information processing and bounded rationality in TCE theory, additional

mechanisms such as relational governance might be needed to safeguard further past and future investments. Therefore, we posit that supplier asset specificity affects both contractual and relational governance (in the absence of environmental uncertainty – cf. *infra*).

Uncertainty. Uncertainty is the second most analyzed transaction-specific attribute (David and Han, 2004). In TCE, uncertainty is mostly related to environmental or behavioural aspects (Rindfleisch and Heide, 1997). Environmental uncertainty is also referred to as external uncertainty, while behavioural uncertainty is sometimes called internal uncertainty (Cannon et al., 2000). The research overview of David and Han (2004) reveals that the most common form of uncertainty is environmental uncertainty, while behavioural uncertainty is less frequently investigated. Environmental uncertainty is defined as unanticipated changes in relevant factors surrounding the exchange (Noordewier et al., 1990). This type of uncertainty mainly refers to the unpredictability of the environment or the inability to predict changes in the external environment (Joshi and Stump, 1999). The operationalization of environmental uncertainty is not uniform across research studies as several types of unpredictability can be incorporated. Market conditions, such as price and demand (Pilling et al., 1994), and technology (Heide and John, 1992; Poppo and Zenger, 2002) are the most frequently occurring (David and Han, 2004). Behavioural uncertainty is defined by Williamson (1985) as arising from problems related to monitoring the performance of exchange partners. This type of uncertainty refers to the unpredictability of the exchange partner's behaviour. Conform to this definition, behavioural uncertainty is most often operationalized as the degree of difficulty associated with assessing the performance of transaction partners (Anderson, 1985; Rindfleisch and Heide, 1997). Behavioural uncertainty encompasses the difficulty to evaluate the service delivered, to determine product or service standards, and to render objective assessments (Cannon et al., 2000).

Empirical results of previous research indicated that environmental and behavioural uncertainty can have opposite effects on the governance of business services exchanges (Poppo and Zenger, 2002). In business services settings, behavioural uncertainty seems to have a much stronger influence on exchange governance than in manufacturing settings (Brouthers and Brouthers, 2003). Services tend to be more people-oriented (Erramilli and Rao, 1993) and are harder to judge on delivery (Fitzsimmons and Fitzsimmons, 2006): for example, the output of advertising services will be harder to evaluate than the output of OEM supplies. Consequently, services firms respond more to the people-oriented component of

TCE, i.e. behavioural uncertainty, than manufacturing firms (Brouthers and Brouthers, 2003). Environmental uncertainty consists of unpredictability of both technology and market conditions such as price and demands (David and Han, 2004). As services are less investment intensive and require fewer resources (Erramilli and Rao, 1993), services firms are less responsive to certain technology-related or material-related uncertainties than manufacturing firms (Brouthers and Brouthers, 2003). For example, the steel-making industry will be very responsive to the development of an enhanced steel producing technology. On the other hand, services firms could be equally or more responsive to other facets of environmental uncertainty such as demand and competition (Brouthers et al., 2002). As services can not be inventoried and sold at a later time, increases in demand may also cause increases in service firm costs. Furthermore, in services settings such as the cleaning industry, the threat of new entrants is typically greater than in manufacturing settings (Brouthers et al., 2002).

According to TCE theory, uncertainty has an impact on exchange governance only in the presence of asset specificity: a moderating effect is assumed (David and Han, 2004). In our research, set in a business services context, we posit a moderating effect of environmental uncertainty on the relationship between asset specificity and exchange governance. However, a direct effect of behavioural uncertainty on exchange governance is assumed. Because of the high people-oriented character and increased difficulty in assessing the exchange partner's behaviour in business services settings, behavioural uncertainty is proposed to influence exchange governance apart from the level of asset specificity.

Despite the numerous empirical studies on TCE theory, possible moderating effects of environmental uncertainty on the relationship between asset specificity and governance mechanisms has not yet been empirically investigated. According to TCE theory, when asset specificity is present to a certain degree, increasing uncertainty renders markets preferable to hybrids and hierarchies preferable to both hybrids and markets (David and Han, 2004). However, higher levels of environmental uncertainty increase the costs of establishing or adapting contractual agreements (Rindfleisch and Heide, 1997): when high environmental uncertainty is present, it is hard to determine *ex ante* how to react on unforeseen changes. Moreover, the study of Pilling, Crosby and Jackson (1994) indicates that environmental uncertainty increases the *ex ante* costs of developing an exchange relationship and specifying the roles of each exchange partner. As a consequence, due to increased environmental uncertainty, it will be harder to stipulate *ex ante* detailed and specific roles and obligations for

each exchange partner. Furthermore, faced with environmental uncertainty, the exchange partners may prefer to remain flexible in the relationship and as such resist governance mechanisms that result in greater contractual governance (Gundlach and Achrol, 1993). Thus, we posit that contractual governance will be a less effective mean to safeguard against past and future specific investments and to deal with opportunism caused by asset specificity in highly uncertain environments. Therefore, environmental uncertainty will have a negative moderating effect on the relationship between supplier asset specificity and contractual governance.

As contractual governance is not a sufficient governance mechanism to protect against opportunism caused by asset specificity in highly uncertain environments, other governance mechanisms should be developed as safeguard. The research of Cannon, Achrol, and Gundlach (2000) indicated that, when uncertainty is high, contractual governance is not sufficient: relational governance should be enhanced to protect against opportunism. If relational governance is established, adaptations to changes in the environment can be carried out more readily (Heide and John, 1990) and efficiencies for both exchange partners are enhanced (Claro et al., 2003). Therefore, we posit that environmental uncertainty has a positive moderating effect on the relationship between supplier asset specificity and relational governance: in settings with high environmental uncertainty, supplier asset specificity has a more profound impact on relational governance.

In business services exchanges, behavioural uncertainty will be more important than in manufacturing settings because of the relatively more people-oriented and less tangible character of services (Brouthers and Brouthers, 2003). Material goods can be inspected upon delivery, but this opportunity does not exist for purchased services: how does one for example know if the supplier of plant security is being effective (Fitzsimmons and Fitzsimmons, 2006). More problems related to monitoring the exchange partner's performance will arise in services settings because of their intangibility, simultaneity and people-oriented character (Erramilli and Rao, 1993). Consequently, behavioural uncertainty will have a more profound impact in business services exchanges than in manufacturing settings (Brouthers and Brouthers, 2003).

Few researchers have investigated the impact of behavioural uncertainty on exchange governance (David and Han, 2004). Moreover, no researcher, except for Poppo and Zenger

(2002), has incorporated both contractual and relational governance to assess the impact of behavioural uncertainty on exchange governance. Rindfleisch and Heide (1997) state that behavioural uncertainty causes ex ante information asymmetry because of the inability to determine a party's true characteristics prior to the exchange. Therefore, with high behavioural uncertainty it might be harder to determine ex ante which monitoring practices should be incorporated in the contract or to stipulate ex ante detailed and specific roles and obligations for each exchange partner, especially in business services exchanges. Although the research study of Poppo and Zenger (2002) initially indicated a positive relationship between behavioural uncertainty and contractual governance, further detailed analyses revealed a negative impact of behavioural uncertainty on contractual governance when other factors were taken into account.

Behavioural uncertainty also causes ex-post difficulties because of information asymmetry regarding task performance (Rindfleisch and Heide, 1997). When behavioural uncertainty increases and performance of the exchange partner is hard to evaluate, relational governance is difficult to develop (Heide and Miner, 1992). Based on Heide and Miner (1992), the following argument can be developed. Behavioural uncertainty makes it unclear whether a bad service performance is caused by the other party or whether the cause is beyond the other party's control. If you give the other party the benefit of the doubt, the road to exploitation is open. If you consider it a fault of the other party, a spiral of joint retaliation is created. In either way, behavioural uncertainty has a negative impact on relational governance in business services (Eriksson and Sharma, 2003). Based on the above arguments, this type of uncertainty has a negative impact on exchange governance: we posit a negative relationship between behavioural uncertainty and contractual governance and between behavioural uncertainty and relational governance in business services exchanges.

Reciprocal investments. Next to supplier asset specificity, specific investments can also be made by the other partner to the exchange. In this research, we refer to buyer asset specificity or reciprocal investments. Based on TCE theory, reciprocal investments can form a “hostage” (Williamson, 1983): these investments serve as a credible commitment in the relationship. Based on reciprocal investments, bilateral credible commitments and a mutual reliance relation are created (Williamson, 1985) instead of unilateral dependence (Joshi and Stump, 1999). Reciprocal investments are supposed to protect the specific investments of the other exchange party and consequently tend to lower the need for safeguards against opportunism

(Zaheer and Venkatraman, 1995), due to the credible threat of forfeiture of the hostages (Joshi and Stump, 1999). On the other hand, Heide and John (1990) argue that specific assets do not have the characteristics of good “hostages” because these are valued more highly by the giver than the taker. Consequently, the effects of supplier and buyer asset specificity are both enhancing and not attenuating the need for exchange governance: specific investments of both buyer and supplier increase the level of relational governance (Heide and John, 1990). As neither exchange party is able to turn to another exchange relationship due to the specific investments, both parties are willing to develop relational governance to assure cooperation in the future (Joshi and Stump, 1999). The negative influence of reciprocal investments on exchange governance has not been empirically confirmed (Zaheer and Venkatraman, 1995), whereas the positive influences of both supplier’s and buyer’s specific investments on relational governance have been empirically confirmed (Joshi and Stump, 1999).

The joint impact of reciprocal investments or buyer asset specificity and supplier asset specificity on contractual governance has not yet been empirically investigated. Based on TCE theory, we propose that detailed and specific contracts contain remedies for anticipated contingencies to safeguard against opportunism caused by supplier asset specificity (Poppo and Zenger, 2002). However, the detailed roles and obligations are established for each party to the exchange. Consequently, not only the supplier’s but also the buyer’s specific investments made will be protected by the contract. For example, the longer the term of the contract, the more the supplier and buyer specific investments will be protected (Joskow, 1987). Therefore, additional specific investments made by the buyer will not increase contractual governance. Thus, reciprocal investments do not influence contractual governance but relational governance is enhanced by those investments because neither party is able to turn to another exchange relationship (Joshi and Stump, 1999).

Trust. Next to the above cited economic factors, several researchers include trust as non-economic or social factor to explain exchange governance (e.g., Joshi and Stump, 1999). The statement of Chiles and McMackin (1996) that the inclusion of trust (sociological perspective) significantly increases the explanatory power of the exchange model is empirically confirmed in business services exchanges by the research of Zaheer and Venkatraman (1995). In business exchange relationships, trust is the firm’s belief that another company will perform actions that will result in positive outcomes for the firm as well as not take unexpected actions that would result in negative outcomes for the firm (Anderson and Narus; 1990). This

definition captures the behavioural dimension of trust that is of particular importance to maintain interorganizational relationships (Aulakh et al., 1996; Zhang et al., 2003). Trust is a necessary condition for relational governance (Macneil, 1980) and it has been consistently mentioned as a predictor or antecedent of cooperative behaviour between organizations (Ring and Van de Ven, 1994): trust is a necessity for firms to learn that cooperation and relational governance will lead to outcomes that exceed what could be achieved if acted solely (Anderson and Narus, 1990; Siguaw et al., 1998). In the longitudinal sense, trust can also be an outcome of relational governance because of recursive relationships (Bradach and Eccles, 1989; Johnston et al., 2004). Trust has been studied widely in the social exchange literature and others (Morgan and Hunt, 1994) and indicated as the most encompassing determinant of relational governance (Claro et al., 2003). As our focus is on the governance of the current exchange, we also consider trust as a necessary condition for the development of relational governance.

Incorporating the sociological perspective in the TCE framework further implies that behavioural uncertainty may be reduced by trust in contractual relations (Chiles and McMackin, 1996). Based on Zand (1972), Chiles and McMackin (1996) state that the existence of trust in a contractual relationship increases accurate, comprehensive and timely information exchanges, enhances receptivity to influence by others and relaxes controls on others. Consequently, each party has greater certainty as to the performance of the exchange partner, decreasing behavioural uncertainty (Chiles and McMackin, 1996; Zand, 1972). When buyers trust suppliers and perceive them as being capable of delivering competent performance, the performance outcomes become more predictable and less uncertain (Gao et al., 2005). Thus, trust does not only enhance relational governance, it also decreases the level of behavioural uncertainty in business services exchanges.

3.05 *Theoretical and Practical Implications*

The above arguments and the model as illustrated in Figure 1 give an overview of the effect of transaction-specific attributes and trust on contractual and relational governance and the impact of these governance mechanisms on performance outcomes in business services exchanges. A number of researchers have already empirically tested one or more of these relationships. While Table 1 gives an overview of the constructs incorporated in previous

research, Table 2 describes the relationships between constructs which have been investigated by each research study. The objective of these research studies is to investigate buyer-seller relationships with focus on one or both governance mechanisms (contractual, relational) and to examine the antecedents, performance outcomes or both. These tables indicate that an overall picture, incorporating both economic and social antecedents, contractual and relational governance, and their performance outcomes, is rarely considered. Moreover, the relationships proposed in the above reasoning and illustrated in the model sometimes deviate from the hypothesized relationships in previous research. This divergence is caused by both the scope and the focus of this paper: a global picture of exchange governance is investigated in the specific business services setting. Theoretical and managerial implications are discussed, along with directions for future research.

(i) Theoretical and management implications

Despite Macaulay's (1963) early statement that in most business exchanges, no contracts were used, recent research studies indicate that companies still do compose and sign contracts (Roxenhall and Ghauri, 2004), even in business services settings (Dean and Kiu, 2002; Ivens, 2005). Based on the model (Figure 1), contractual governance might impact both directly and indirectly performance outcomes. Business services relationships in which a contract has been established ex ante can benefit from this action during the term of the contract by increased relational governance and enhanced performance outcomes. Consequently, contractual governance deserves more attention by both academia and practitioners but, until now, contractual governance has been rarely included in research on exchange governance (Table 2). Due to the intangibility of services, it might be harder to write contracts ex ante in business services settings than in manufacturing settings. However, in accordance with the complementarity view, governance of business services exchanges should also include written specifications as contracts are proposed to influence both relational governance and performance outcomes.

Table III-2: Overview of the effects investigated in the literature on exchange governance^{a b c d}

| Empirical Study | CG- RG | CG& RG-Perf | CG- Perf | RG- Perf | AS - CG | AS/UNC- CG | | AS-RG | | AS/UNC- RG | | UNC-CG | | UNC-RG | | Trust- RG | Trust- Unc |
|------------------------------|---------------|-----------------|-----------------|----------------|------------|---------------|--|-------|-------|---------------|-------|--------|-------|-------------|--------------|---------------|---------------|
| | | | | | | | | SAS | BAS | | | ENV | BEH | ENV | BEH | | |
| Aulakh et al. (1996) | | | | pos** | | | | | | | | | | | | | |
| Bello et al. (2003) | | | | pos** | | | | | | | | | | neg** | | | |
| Cannon et al. (2000) (1) | | pos**/ NOT** | NOT**/ pos** | pos**/ NOT | | | | | | | | | | | | | |
| Claro et al. (2003) | | | | pos** | | | | pos* | | | | | | pos | | pos** | |
| Eriksson, Sharma (2003) | | | | | | | | | | | | | | neg | neg** | | |
| Ferguson et al. (2005) | | | neg | pos** | | | | | | | | | | | | | |
| Gao et al. (2005) | | | | | | | | | | | | | | | | | neg** |
| Griffith, Myers (2005) | | | | pos** (if fit) | | | | | | | | | | | | | |
| Gundlach, Achrol (1993) | neg** | | | | | | | | | | pos** | | | | | | |
| Haugland, Reve (1993) | | | | pos** | | | | | | | | | | | | | |
| Heide, John (1990) | | | | | | | | | pos** | | | | | pos/neg** | | | |
| Heide, Miner (1992) | | | | | | | | | | | | | | | neg* | | |
| Johnston et al. (2004) | | | | pos** | | | | | | | | | | | | pos** | |
| Joshi, Campbell (2003) (2) | | | | | | | | | | | | | | pos**/neg** | | | |
| Joshi, Stump (1999) | | | | | | | | pos** | pos** | pos** | | | | neg** | | pos** | |
| Joskow (1987) | | | | | pos** | | | | | | | | | | | | |
| Lusch, Brown (1996) | NOT** | | pos | pos | | | | | | | | | | | | | |
| Noordewier et al. (1990) (3) | | | | pos**/ NOT* | | | | | | | | | | | | | |
| Paulin et al. (1997) | | | | pos** | | | | | | | | | | | | | |
| Poppo, Zenger (2002) | neg/ pos** | neg/ pos** | | | pos* | | | pos* | | | | pos | pos** | pos** | pos | | |
| Siguaw et al. (1998) | | | | pos | | | | | | | | | | | | pos** | |
| Zaheer et al. (1995) | | | | | | | | neg | pos** | | | | | | pos/ neg* | neg/ pos** | |
| Zhang et al. (2003) | | | | pos** | | | | | | | | | | | | | |

^a AS: Asset Specificity; SAS: Supplier Asset Specificity; BAS: Buyer Asset Specificity; UNC: Uncertainty; ENV: Environmental Uncertainty; BEH: Behavioural Uncertainty; CG: Contractual Governance; RG: Relational Governance; Trust: Trust; Perf: Performance

^b NOT: assumed no impact; POS: assumed positive relation; NEG: assumed negative relation

^c **: significant; *: some significance found; : no significance found

^d (1) high vs. low uncertainty/asset specificity; (2) dependent on levels of moderator; (3) high vs. low uncertainty

The dominant logic shift from goods to services (Vargo and Lusch, 2004) has an impact on the antecedents of exchange governance, especially on asset specificity and uncertainty. In previous research, asset specificity mainly focused on physical and human asset specificity (Grover and Malhotra, 2003). Because of the service-dominant logic and the growth in significance of specialized skills and knowledge (Vargo and Lusch, 2004), other aspects of asset specificity should be stressed in business services exchange governance. Business process asset specificity incorporating both human and procedural asset specificity (Zaheer and Venkatraman, 1995) should be considered to determine the best suited governance mechanisms in business services settings. As a consequence, physical asset specificity becomes less relevant in these settings. Whether or not the exchange partner invests in transaction-specific physical assets should not strongly influence the chosen governance mechanism. As tangibility amongst services differs, the amount of physical assets needed to deliver the service might vary from setting to setting. Like in logistics services, physical assets might be more fundamental than in consulting services. However, because of the shift towards specialized skills and knowledge, we propose that transaction-specific investments in knowledge, skills and processes will have a more profound impact on exchange governance in business services settings than transaction-specific physical components. Moreover, today's shift towards a service-dominant logic makes knowledge and processes more relevant than physical features (Vargo and Lusch, 2004): goods are no longer the common denominator of exchange, but specialized skills and knowledge are. Therefore, even in manufacturing settings, business process asset specificity might need to be considered by both academia and practitioners. Procedural asset specificity can be of relevance not only in services but also in manufacturing settings because it deals with customized organization routines as well (Zaheer and Venkatraman, 1995), like for example ordering routines.

Next to the focus on business process asset specificity, the service-dominant logic also causes behavioural uncertainty to play a more fundamental role in business services exchanges. The intangibility, simultaneity and people-oriented character of services make it harder to control and monitor the performance delivered by the exchange partner in services than in manufacturing settings (Brouthers and Brouthers, 2003; Erramilli and Rao, 1993). Consequently, because of the *ex ante* and *ex post* information asymmetries caused by behavioural uncertainty, the model proposes a direct negative impact on both contractual and relational governance. The type of uncertainty most frequently investigated in previous research, i.e. environmental uncertainty, is proposed to have only a moderating effect on the

relation between asset specificity and exchange governance. When asset specificity is low, environmental uncertainty is proposed to have little impact on exchange governance. On the other hand, the impact of behavioural uncertainty is proposed to be independent of the level of asset specificity. As business services are difficult to judge on delivery, both academia and practitioners should give more attention to the impact of behavioural uncertainty on exchange governance and how its influence can be reduced in business services settings. Next to the proposed effect of trust on behavioural uncertainty, other ways to decrease this type of uncertainty should be investigated as this is an essential antecedent of exchange governance in business services settings.

(ii) Directions for future research

The above arguments and model (Figure 1) combined with the results of previous research displayed in Table 1 and Table 2 indicate some directions for future research that need to be further explored. First, compared to relational governance, few research studies have incorporated contractual governance despite the increased use of contracting for service delivery (Dean and Kiu, 2002). Those studies that do incorporate contracts in their research model all take place in the United States or Canada (Table 1). Previous studies on law and regulation have indicated that institutional factors, such as the contract law doctrine (Arrighetti et al., 1997) and the degree of stability and consistency in systems of social regulation (Lane, 1997), have an influence on preferred strategies for inter-firm contracting and the type of buyer-seller cooperation. As these institutional factors differ across countries, more research is needed on contractual governance in countries outside the North American continent. Moreover, most studies on contractual governance generally consider this construct as one-dimensional. Nevertheless, contracting literature suggest two dimensions of contract structure: the level of contract specificity (Gainey and Klaas, 2003) and the level of contract flexibility (Harris et al., 1998). Therefore, the impact of contractual governance and its dimensions should be further explored. When investigating contractual governance, relational governance should also be included. While a few researchers do incorporate both governance mechanisms to investigate their impact on performance outcomes (Cannon et al., 2000; Ferguson et al., 2005), they generally do not incorporate the interrelationship between these governance mechanisms. As certain relationships proposed in this paper such as the impact of contractual governance on performance or the impact of contractual governance on relational governance were not incorporated in previous research studies, this might explain the

differing findings between research studies on exchange governance in business settings. Future research is needed to clarify the interrelationships between contractual governance, relational governance, and performance outcomes in a business services setting.

Second, several researchers have included a certain type of asset specificity in their research study on exchange governance, but in recent years asset specificity is rarely included in these research studies. Nonetheless, a number of research possibilities are still unexplored. Few research studies have investigated the impact of asset specificity on contractual governance and to the best of our knowledge no research study has yet investigated the impact of asset specificity and environmental uncertainty on contractual governance (Table 2). As a consequence, based on current research, it is empirically unclear whether and how contractual governance can safeguard the exchange partners against opportunistic behaviour in a situation with either low or high environmental uncertainty. Transaction-specific investments for a particular exchange can be made by the supplier or the buyer: theory and empirical results indicate the relevance of both supplier and buyer asset specificity. However, only a limited number of research studies distinguishes between both types of asset specificity and no research study has yet examined whether these have a distinct impact on exchange governance, including both contractual and relational governance mechanisms (Table1, Table2). For example, the impact of buyer asset specificity on contractual governance has not yet been investigated. In this paper we propose an insignificant relationship between these constructs but this has not yet been empirically validated. On the other hand, the positive impact of buyer asset specificity on relational governance has been empirically confirmed (Joshi and Stump, 1999; Zaheer and Venkatraman, 1995), though not in the presence of contractual governance. Therefore, future research is needed to fully understand the impact of specific investments made by the buyer. From a managerial viewpoint it is interesting to know how investments of the other party can affect the buyer-supplier relationship and the resulting performance outcomes in business services exchanges. When the impact of supplier and buyer asset specificity in business services settings is further explored, more emphasis should be placed on human and procedural asset specificity in stead of physical aspects because of the intangible nature of services.

Third, despite the higher relevance of behavioural uncertainty in business services settings, this type of uncertainty has been less frequently investigated. Nonetheless, the unpredictability of the exchange partner's behaviour can put a different complexion on

business services exchange governance because of its negative influence on exchange governance mechanisms. While buyer asset specificity or contractual governance can enhance the development of relational governance, this increase in relational governance can be restricted because of high behavioural uncertainty in the buyer-supplier relationship concerned. Thus, when behavioural uncertainty is overlooked in a business services setting, implications of certain managerial activities can be assessed quite wrongly. Future research is needed to enhance our understanding of behavioural uncertainty and to investigate how the predictability of the exchange partner's behaviour can be increased. In this paper, we propose the level of trust as an important antecedent of behavioural uncertainty but further research is needed to investigate how this influence will affect the buyer-supplier relationship and resulting performance outcomes in a business services setting.

Finally, previous research studies have used buyer, supplier or dyadic (buyer and supplier) data to empirically investigate the hypotheses. The research overview in Table 1 and Table 2 indicates that research studies with buyer data most frequently occur. These research studies incorporate on average more constructs and relationships (included in the tables) than the other studies, but studies with buyer data have never taken place outside North America. Nonetheless, the tables indicate no differences in results for generally investigated relationships based on type of data used: consistent findings, such as the impact of relational governance on performance, are confirmed in all groups and rather inconsistent findings, such as the impact of environmental uncertainty on relational governance, have erratic results in all groups. This supports the statement that buyer and seller share consistent perceptions of the exchange relationship, its attributes and performance (Anderson and Narus, 1990; Heide and John, 1990; Zaheer et al., 1998), although further research is needed to confirm this statement and assure that the possible impact of information bias and error is negligible.

When empirically testing the proposed model, researchers might need to include a number of control variables. Some other attributes than those incorporated in the model may have an effect on exchange governance and performance outcomes. When these additional variables are included in empirical studies testing the proposed relationships, competing explanations will be accounted for (Cannon et al., 2000). Possible control variables often suggested by previous research are the relationship length between exchange partners (Cannon et al., 2000; Claro et al., 2003; Ferguson et al., 2005; Poppo and Zenger, 2002), variables related to characteristics of the buying situation such as complexity and importance of the supply

(Cannon and Perreault, 1999), and cultural differences between the exchange partners (Griffith and Myers, 2005).

The relationships between constructs illustrated in the model (see Figure 1) are proposed to be valid at a certain point in time during an interfirm business service exchange: the contract has been established *ex ante* and relational governance continues to develop over time. However, recursive relationships between constructs may occur outside the time span of the developed model. Thus, further research on interrelations between the factors incorporated in the model during the earlier negotiation phase and contract drawing or during the subsequent negotiation phase and contract renewal is needed. Table 1 indicates that previous research has mainly focused on product exchanges, distribution or export in a business setting. Because of the impact of service characteristics on the exchange governance model, other sectors need to be further explored. This model should be empirically tested in several business services exchanges such as IT outsourcing, professional business services like consulting or advertising, business logistics, support services etc. While not proposed in the model, we suppose that cross-sectional differences might occur between the relative magnitudes of the impact of various factors considered in the model, caused for example by varying institutional factors across sectors (Arrighetti et al., 1997). Cross-sectional research investigating the proposed relationships and their relevance for a particular sector would further increase the knowledge on business services exchange governance.

3.06 References

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Chapter IV. Dealing with Business Service Transactions after the Sourcing Decision: Influence of Contract and Uncertainty

Darline Vandaele and Paul Gemmel

4.01 Abstract

Business companies are increasingly dealing with external sourcing agents in today's marketplace. However, few research studies have investigated how purchased business services should be governed after the sourcing decision, during the interaction between buyer and seller. This research study investigates business service exchange governance after the purchase decision: we assess the influence of asset specificity and uncertainty on contractual and relational governance and their performance outcomes. The results reveal that contracts should not just be used to establish business relationships as these formal agreements do impact business services exchanges after the sourcing decision. The two components of contractual governance, specificity and flexibility, each have a distinct impact on business services exchanges, indicating that both need to be developed carefully when drafting a contract. Although formal agreements influence business service exchange governance in the life after the purchase, informal mechanisms such as relational governance should not be overlooked. The relational norms developed during the buyer-seller interaction complement the contractual arrangements made. In business services settings, governance mechanisms are more strongly determined by uncertainty related to behavioural than to environmental aspects. The identity of the party making transaction-specific investments – buyer or supplier – determines whether those investments will be safeguarded by either contractual agreements or relational governance. Based on the results, an integrated governance scheme for business service transactions is developed.

4.02 Introduction

In today's turbulent marketplace, the business services sector continues to grow in our economies. Because of developments such as servization of goods and increased outsourcing,

the share of services in total purchase volumes has increased (Murray and Kotabe, 1999) and employment in business services keeps rising. Service sourcing practices become more prevalent and buying organizations are increasingly dealing with suppliers and external sourcing agents. Consequently, a strong focus on buyer-seller exchanges and on the mechanisms used to govern these exchanges is needed. However, a lot of research has concentrated on the initial stages of the purchase process, like selection and contracting. The ongoing interactions that take place between buyer and seller after the sourcing decision have been less frequently investigated (Wynstra et al., 2006), especially in services settings (Brown et al., 2000).

After the sourcing decision, in the life after the purchase, the exchange partners are involved in the relationship, past the awareness phase and before dissolution (Dwyer et al., 1987). The service deliveries and their performance outcomes in the execution stage determine whether or not both parties are willing to continue or enhance the relationship (Ring and Van de Ven, 1994). The establishment of long-term relationships and customer retention is strategically important, especially in highly competitive service environments. Therefore, the service exchange between buyer and seller in the life after the purchase should be carefully governed. Exchange governance refers to formal and informal rules of exchange between buyer and seller (Nickerson et al., 2001; Wathne and Heide, 2004) and consists of economic and relational governance strategies (Griffith and Myers, 2005). Most research studies on exchange governance have focused on manufacturing settings (Brown et al., 2000). More in-depth research on buyer-seller exchange governance in services settings is needed as the governance of business services transactions is different from the governance of business manufacturing transactions. First, because of the intangible nature of services, the writing of contracts is more challenging (Fitzsimmons and Fitzsimmons, 2006) and relational structures such as relational norms will necessarily emerge (Vargo and Lusch, 2004). Second, the findings of previous research indicate that manufacturing and services firms seem to respond differently to determinants of exchange governance such as asset specificity and uncertainty (Brouthers and Brouthers, 2003). As services tend to be more people-oriented and have a less tangible nature, evaluation of the services being delivered is more difficult (Fitzsimmons and Fitzsimmons, 2006), enhancing the uncertainty on outcomes of action. Moreover, in services, a higher degree of collaboration is needed in the exchange (Jackson et al., 1995). This means that interactive processes between buyer and seller take place and that the buyer can actively participate during service production (Kumar, 1999). The ongoing interaction in the life after

the purchase is more prevalent in services settings. However, few research studies on service sourcing have investigated how the purchased business services should be governed after the sourcing decision, during the ongoing interaction processes between buyer and supplier (Wynstra et al., 2006).

In this research study, we investigate business services exchange governance after the sourcing decision. In general, two types of governance strategies have been studied (Griffith and Myers, 2005): contractual and relational governance strategies. These two types of governance strategies are generally studied separately rather than within an integrated framework (Carson et al., 2006; Luo, 2002). In most of these studies, contractual governance is usually considered as an one-dimensional construct, although more recent research shows that contractual governance can be better described by two dimensions to study contracts (Battigalli and Maggi, 2002) and their interaction with relational governance (Luo, 2002), that is contract detail and contract flexibility. To the best of our knowledge, no other research study has addressed the economic antecedents that might influence the two-dimensional construct of contractual governance. Previous research has indicated that economic antecedents, i.e. asset specificity and uncertainty, are influenced by service specific characteristics (Brouthers and Brouthers, 2003). In this research study, we focus on business services settings to address this research gap: we investigate the influence of economic antecedents on contractual governance (measured by two dimensions) and on relational governance and the impact of both on performance outcomes.

The next section of the paper discusses the governance mechanisms for business services exchanges and the incorporated antecedents. We then develop hypotheses regarding the impact of antecedents and governance mechanisms on performance outcomes. Afterwards, the research method and data collection procedure are described. The proposed relationships are analyzed using data out of a specific business services setting. Finally, the results are discussed, along with some managerial implications and directions for future research.

4.03 *Conceptual Background*

Governance of transactions has been the focus of the Transaction Costs Economics (TCE) theory described by Williamson (1979). Transactions are defined as the transfer of a good or a

service (Williamson, 1985). Based on transaction-specific attributes, the appropriate governance mechanism, i.e. the governance structure which minimizes the associated transaction costs, can be determined (Williamson, 1991). The governance mechanisms in TCE are originally limited to two alternate forms: market governance with the market as governance mechanism and hierarchy or vertical integration with the firm as governance mechanism (David and Han, 2004; Rindfleisch and Heide, 1997). Afterwards, intermediate modes of governance termed hybrids have been proposed and their strategic importance is growing (Zaheer and Venkatraman, 1995). In hybrids or bilateral governance modes, the unit of analysis is no longer the transaction itself, but the relationship established between supplier and buyer, based on the transactions taking place.

(i) Exchange governance mechanisms

In general, two types of governance strategies have been studied (Griffith and Myers, 2005): economic governance strategies such as contracts (Lusch and Brown, 1996) and relational governance strategies such as relational norms (Haugland and Reve, 1993; Heide and John, 1992). Contracts and relational norms are considered the two common governance mechanisms used as building blocks for complex structures of governance (Cannon et al., 2000). In this research study, both contractual and relational governance are included as the interesting questions about these governance mechanisms have less to do with their single effect than with their combined effect (Achrol and Gundlach, 1999). Each governance mechanism has specific advantages and disadvantages and is not simply a substitute for the other (Carson et al., 2006).

Contractual governance is considered a formal, legal and economic governance strategy (Ferguson et al., 2005; Lusch and Brown, 1996). In this research, contractual governance refers to explicit, formal, and usually written contracts. Contracts are binding legal agreements that specify the obligations and roles of both parties in the relationship. As such, contracts can be considered as substitutes for formal governance mechanisms of hierarchy or integration in business exchanges (Ferguson et al., 2005; Gundlach and Achrol, 1993; Heide, 1994; Lusch and Brown, 1996). Several researchers have delineated the importance of examining contracts (Brown et al., 2006; Lusch and Brown, 1996) and suggest that if contracts are misused, performance outcomes and behavioural relations among buyers and sellers may be harmed. Previous research mainly views contractual governance as one-

dimensional (e.g., Poppo and Zenger, 2002), causing controversy over the role of contractual governance (Luo, 2002). However, contracting theory identifies two dimensions of contract structure (Battigalli and Maggi, 2002): the level of contract detail and the level of contract flexibility. Contract detail, or contract specificity, can be defined as the extent to which contractual agreements are used to specify roles and obligations of the parties with sufficient precision and detail (Cannon et al., 2000). Contract flexibility indicates the ability of parties to adjust their behaviour or the terms of the agreement in response to changes in the environment or to the changing needs of the other party (Young-Ybarra and Wiersema, 1999), also referred to as modification flexibility. It is the degree to which guidelines and possible solutions for handling various unanticipated contingencies are incorporated in the contract (Luo, 2002). Contract flexibility does not necessarily contradict or reduce the importance of contract detail: high level of contractual governance requires high levels on both dimensions (Luo, 2002).

Relational governance is defined as the strength of the social norms in the exchange and has often been referred to as relationalism (Ferguson et al., 2005). Relational norms are defined as the bilateral expectations that exchange partners will act in ways that assist each other during the course of the relationship (Joshi and Campbell, 2003). As such, relational governance can be considered rather informal and social, compared to contractual governance (Achrol and Gundlach, 1999). Dwyer, Schurr, and Oh (1987) introduced Macneil's (1980) relational contract theory and its behavioural concepts into the marketing literature on buyer-seller relationships. Ever since, it is generally accepted that interfirm activities can be managed using relational elements or norms (Weitz and Jap, 1995; Zhang et al., 2003). The importance of relational norms in business services settings has been illustrated by Paulin, Perrien, and Ferguson (1997).

(ii) Economic antecedents

Based on TCE theory, relevant economic antecedents relate to asset specificity and uncertainty (Williamson, 1985). These transaction-specific attributes will have an influence on the appropriate governance mechanism for a particular exchange (Williamson, 1991) and are related to two main assumptions of human behaviour in TCE (Rindfleisch and Heide, 1997): bounded rationality and opportunism. Bounded rationality assumes that decision makers have limited rationality because of constraints on their cognitive capabilities. While decision makers may be willing to act rationally, limited information processing and

communication causes bounded rationality (Rindfleisch and Heide, 1997). Due to the presence of uncertainty, bounded rationality plays a more profound role in the exchange setting. The second assumed human behaviour in TCE, opportunism, supposes that decision makers may be seeking to serve their self-interest: “self-interest seeking with guile” (Williamson, 1985). This relates to behaviours such as lying, cheating or other forms of violating the agreement. The extent to which specific assets support the transaction causes opportunism-related behavioural problems because of the increased safeguarding problem (Rindfleisch and Heide, 1997).

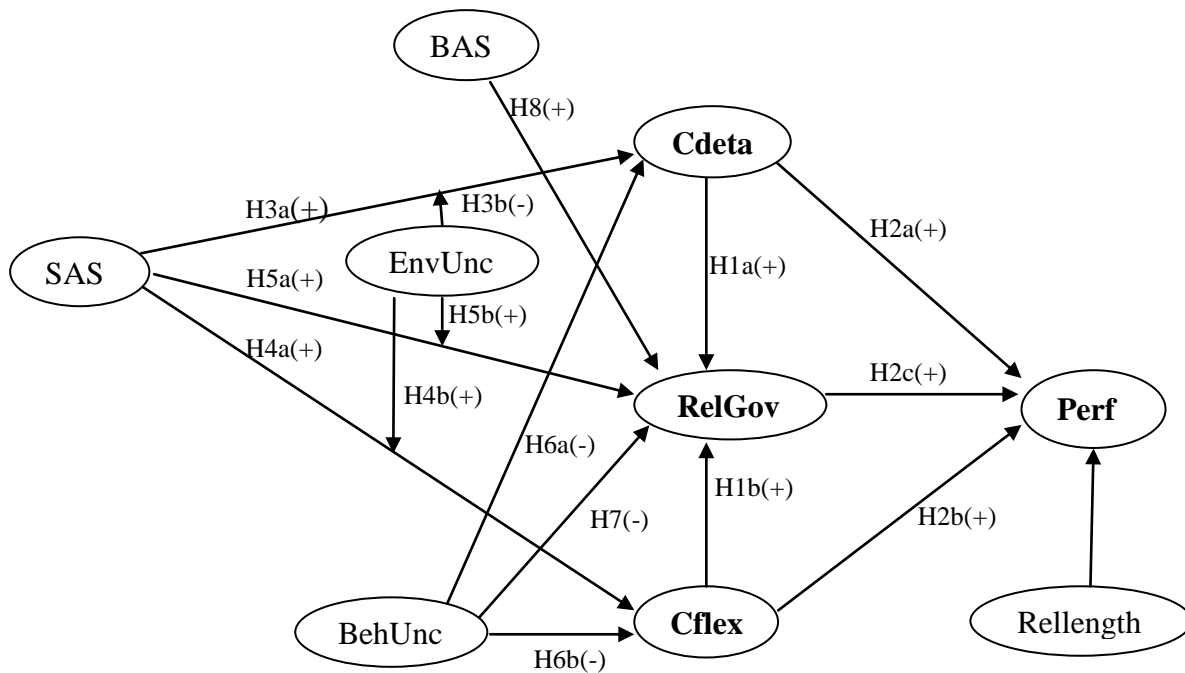
Asset specificity is defined by Williamson (1991) as the degree to which the assets used in support of the transaction can be redeployed to alternative uses without sacrifice of productive value. Transaction specific investments can be made by either the buyer or the seller (Heide and John, 1990). While most studies incorporate only one of these types of asset specificity (Claro et al., 2003; Heide and John, 1992), both TCE theory (Williamson, 1983) and empirical results (Stump and Heide, 1996) indicate the relevance of both in the governance of interfirm exchanges. Specific investments made by the supplier are referred to as supplier asset specificity, while specific investments made by the buyer are referred to as buyer asset specificity. In general, specific investments in physical and/or human aspects are considered (Grover and Malhotra, 2003). Physical asset specificity refers to investments in physical assets such as equipments and tools, while human asset specificity relates to those investments in knowledge and skills of the workforce needed to deliver the required service. Because of the intangible nature of services, specific investments in procedural aspects such as a firm’s workflow or processes should also be considered (Zaheer and Venkatraman, 1995).

In TCE, uncertainty is mostly related to environmental or behavioural aspects (Rindfleisch and Heide, 1997). Environmental uncertainty is also referred to as external uncertainty, while behavioural uncertainty is sometimes called internal uncertainty (Cannon et al., 2000). The research overview of David and Han (2004) reveals that the most common form of uncertainty studied is environmental uncertainty, while behavioural uncertainty is less frequently investigated. However, when behavioural uncertainty is excluded in a particular research study, environmental uncertainty can incorrectly capture some of the effects of behavioural uncertainty (Carson et al., 2006). Environmental uncertainty refers to the unpredictability of the environment or the inability to predict changes in the external

environment (Joshi and Stump, 1999). This type of uncertainty relates to unanticipated changes in relevant factors surrounding the exchange (Noordewier et al., 1990), with market conditions, price (Pilling et al., 1994; Zaheer and Venkatraman, 1995), and technology (Poppo and Zenger, 2002; Zaheer et al., 1998) as the most frequently occurring (David and Han, 2004). Behavioural uncertainty refers to the unpredictability of the exchange partner's behaviour. This type of uncertainty encompasses the difficulty to evaluate the service delivered, to determine product or service standards and to render objective assessments (Cannon et al., 2000). Because of the relatively more people-oriented and less tangible character of services, behavioural uncertainty is supposed to have a more profound impact in business services settings than in manufacturing settings (Brouthers and Brouthers, 2003).

4.04 *Hypotheses*

In this research study, we want to investigate the “life after the purchase” (Wynstra et al., 2006) for business services exchanges: how should purchased business services be governed after the purchase and during the interaction. Buyer-seller exchanges in business services markets are governed through both formal and informal agreements (Ivens, 2005) and the use of contracting for service delivery is extensive and rising (Dean and Kiu, 2002). Explicit, written contracts between buyer and seller are established in the commitment stage (Ring and Van de Ven, 1994). During the execution of the contract, the content of the contract mainly remains unchanged until the next negotiation phase (Ring and Van de Ven, 1994). Relational governance emerges from the values and agreed-upon processes found in the relationship and further develops within the relationship (Macneil, 1980; 1983). Thus, at a certain point in the life after the purchase, the contract has been established *ex ante* and relational governance continues to develop over time. The contract serves as an *ex ante* framework and is related to the structure of the exchange, while relational governance relates to the process of the exchange (Luo, 2002). In this study we develop hypotheses for business services exchanges related to the life after the purchase, during the process of the exchange. The hypothesized relationships are illustrated in Figure 1.

Figure IV-1: Business services exchange governance model ^a

(i) Performance outcomes of exchange governance

While certain researchers claim that contracts may be detrimental to the development of relational behaviour, others state that contractual and relational governance are complements and should be considered simultaneously (Lazzarini et al., 2004; Woolthuis et al., 2005). Based on TCE and contract theory, the established contract limits the possibilities for opportunistic behaviour (Woolthuis et al., 2005). Explicit contracts formally state how parties to the contract should behave over time (Lusch and Brown, 1996). Moreover, the punishments specified in the contract reduce the short-time gains of opportunistic behaviour and heighten the gains from cooperative behaviour (Poppo and Zenger, 2002). In a business service exchange, Ivens (2005) states that more formal and detailed contracts between buyer and seller increase the likelihood that relational behaviour is performed. Thus, well-specified contracts reduce the gains of short-term opportunism through incentives or punishments, thereby increasing the value of honouring more informal dealings such as relational governance (Lazzarini et al., 2004; Poppo and Zenger, 2002). Similarly, flexible contracts also increase the likelihood that relational behaviour is performed. Higher contract flexibility attenuates potential hazards such as the threats from uncertain future conditions and because

^a SAS: Supplier Asset Specificity; BAS: Buyer Asset Specificity; EnvUnc: Environmental Uncertainty; BehUnc: Behavioural Uncertainty; C deta: Contract detail; Cflex: Contract flexibility; RelGov: Relational Governance; Perf: Performance; Rellength: Relationship length

of these attenuated hazards, relational behaviour is enhanced (Luo, 2002). Therefore, we propose that both contract detail and contract flexibility will increase the occurrence of relational behaviour between the exchange partners.

H1a: Contract detail is positively related to relational governance.

H1b: Contract flexibility is positively related to relational governance.

When both governance mechanisms are used simultaneously, advantage can be taken of their combined impact on business exchanges and performance outcomes (Brown et al., 2000; Weitz and Jap, 1995). While assuming a complementary link between contracts and relational governance (Lazzarini et al., 2004; Poppo and Zenger, 2002), in this research study we focus on the different impact of each governance mechanism on performance: each has unique properties in stimulating the performance of business services exchanges (Luo, 2002). Taking into account the complementary relationship between both governance mechanisms, contractual and relational governance are both assumed to have a positive impact on performance outcomes (Poppo and Zenger, 2002), also in a business services setting. For contractual governance, the two dimensions are assumed to be positively related to performance outcomes. High levels of contract detail make it more difficult for the supplier to engage in opportunistic behaviour, resulting in higher performance outcomes of the exchange (Gainey and Klaas, 2003). As a flexible contract provides a framework that enables the exchange partners to easily modify the contract when needs are changing, flexible contracts are the key to improved outcomes (Harris et al., 1998). Thus, we hypothesize:

H2a: Contract detail is positively related to performance outcomes.

H2b: Contract flexibility is positively related to performance outcomes.

H2c: Relational governance is positively related to performance outcomes.

(ii) Economic antecedents of exchange governance

TCE theory suggests that a higher degree of asset specificity, that is higher investments dedicated to a particular buyer and whose redeployment involves considerable switching costs, requires greater safeguards against opportunistic behaviour in the exchange (David and Han, 2004). Contracts have been established ex ante and can be considered as the first safeguard against opportunism. The higher the asset specificity, the more complex the established contracts (Dyer, 1997) and the more long-term contracts will be preferred (Aubert et al., 1996; Joskow, 1987). Complex contracts containing remedies for anticipated

contingencies (contract detail) and for unanticipated contingencies (contract flexibility) are crafted to better safeguard the investor of specific investments against opportunism (Poppo and Zenger, 2002). When asset specificity increases, transaction costs are presumed to increase (Williamson, 1985), but by establishing more complex contracts certain costs associated with asset specificity will be attenuated (Dyer, 1997). For example, more complex contracts eliminate or at least attenuate the need for profit bargaining related to transaction-specific assets (Dyer, 1997). In the life before the purchase, firms may often recognize that asset specificity can make them vulnerable to opportunism and to limit this risk, they take proactive steps by establishing high levels of contractual governance (Gainey and Klaas, 2003). However, when environmental uncertainty is high, it is hard to determine ex ante how to react to unforeseen changes and it will be harder to stipulate ex ante detailed formal agreements between exchange partners (Rindfleisch and Heide, 1997). In other words, higher levels of environmental uncertainty increase the costs of establishing detailed contractual agreements. Faced with this environmental uncertainty, the exchange partners may prefer to remain flexible in the relationship (Gundlach and Achrol, 1993) and as such resist governance mechanisms that result in greater contract detail, while preferring more contract flexibility. Thus, contract detail will be a less effective mean to safeguard past and future specific investments and to deal with opportunism in highly uncertain environments. On the other hand, environmental uncertainty necessitates higher flexibility in contracts to deal with changing circumstances (Harris et al., 1998), especially when transaction specific investments have been made. Therefore, we hypothesize that environmental uncertainty has a negative moderating effect on the relationship between supplier asset specificity and contract detail and a positive moderating effect on the relationship between supplier asset specificity and contract flexibility.

H3a: Supplier asset specificity is positively related to contract detail.

H3b: Environmental uncertainty attenuates the positive effect of supplier asset specificity on contract detail (negative moderating effect)

H4a: Supplier asset specificity is positively related to contract flexibility.

H4b: Environmental uncertainty enhances the positive effect of supplier asset specificity on contract flexibility (positive moderating effect).

Previous research has assumed a positive relationship between asset specificity and relational governance based on TCE theory: asset specificity increases switching costs and relational governance is enhanced as a safeguard against opportunistic behaviour. Although contractual

governance is used as an ex-ante established safeguard against opportunism, additional mechanisms such as relational governance might be needed to protect the transaction-specific investments made after the purchase because of limited information processing and bounded rationality. However, with increasing levels of environmental uncertainty, bounded rationality plays a more profound role in the exchange setting. Contract detail is a less efficient governance mechanism to protect against opportunism caused by asset specificity in highly uncertain environments and therefore other governance mechanisms should be further enhanced. If relational governance is increased, adaptations to changes in the environment can be carried out more readily (Heide and John, 1990) and efficiencies for both exchange partners are enhanced (Claro et al., 2003). Therefore, we posit that environmental uncertainty has a positive moderating effect on the relationship between supplier asset specificity and relational governance: in settings with high environmental uncertainty, supplier asset specificity further increases relational governance.

H5a: Supplier asset specificity is positively related to relational governance.

H5b: Environmental uncertainty enhances the positive effect of supplier asset specificity on relational governance (positive moderating effect).

Next to supplier asset specificity and environmental uncertainty, behavioural uncertainty will also influence business services exchange governance. Behavioural uncertainty causes ex ante information asymmetry because of the inability to determine a party's true characteristics prior to the exchange (Rindfleisch and Heide, 1997). Therefore, when behavioural uncertainty increases, it might be harder to determine ex ante which monitoring practices should be incorporated in the contract or to stipulate ex ante contractual obligations for each exchange partner, especially in business services exchanges. More problems related to monitoring the exchange partner's performance will arise because of their intangibility, simultaneity and people-oriented character (Brouthers and Brouthers, 2003; Erramilli and Rao, 1993). Where greater uncertainty exists about the evaluation and monitoring of performance, parties must generally avoid details in the development of contracts (Gainey and Klaas, 2003). Behavioural uncertainty also causes ex-post difficulties in business services settings because of information asymmetry regarding task performance (Rindfleisch and Heide, 1997). When behavioural uncertainty increases and performance of the exchange partner is hard to evaluate, relational governance is difficult to develop (Heide and Miner, 1992). Behavioural uncertainty makes it unclear whether a bad service performance is caused by the other party or whether the cause is beyond the other party's control. If you give the other party the benefit

of the doubt, the road to exploitation is open. If you consider it a fault of the other party, a spiral of joint retaliation is created (Heide and Miner, 1992). In either way, behavioural uncertainty has a negative impact on the exchange relationship. If behavioural uncertainty is high, parties can engage in opportunism without being caught or cooperative actions can be incorrectly sanctioned as opportunism, reducing incentive for cooperative actions and decreasing the level of relational governance (Carson et al., 2006). Similarly, high levels of behavioural uncertainty make it difficult to determine whether or not the stipulations in the contract have resulted in the requested performance. As a result, if behavioural uncertainty is high, it is hard to evaluate whether or not those contractual stipulations should be changed to fulfil the customers' needs. If the delivered service is incorrectly evaluated as not fulfilling customers' needs because of high behavioural uncertainty, the agreed stipulations in the contract could be changed in the wrong way, deteriorating the performance of subsequent service delivery. Higher levels of behavioural uncertainty complicate the use of contract flexibility, resulting in less flexibility incorporated in the ex ante established contract. As a consequence, we hypothesize:

H6a: Behavioural uncertainty is negatively related to contract detail.

H6b: Behavioural uncertainty is negatively related to contract flexibility.

H7: Behavioural uncertainty is negatively related to relational governance.

Next to supplier asset specificity, specific investments can also be made by the other partner to the exchange, referred to as buyer asset specificity. Based on TCE theory, these investments serve as a credible commitment in the relationship and are supposed to protect the specific investments of the other exchange party (Williamson, 1983). Buyer asset specificity tends to lower the need for safeguards against opportunism (Zaheer and Venkatraman, 1995), due to the credible threat of losing the investments made (Joshi and Stump, 1999). Based on TCE theory, we propose in hypothesis 3 (contract detail) and hypothesis 4 (contract flexibility) that contractual agreements contain remedies for anticipated contingencies to safeguard against opportunism caused by supplier asset specificity (Poppo and Zenger, 2002). Because the statements in the contract are established for each party to the exchange, not only the supplier's but also the buyer's specific investments made will be protected by the contract. For example, the longer the term of the contract, the more both supplier and buyer specific investments will be protected (Joskow, 1987). As a consequence, buyer asset specificity does not increase the need for contractual governance. On the other hand, Heide and John (1990) argue that specific assets do not have the characteristics of a

good safeguard against opportunism because these are valued more highly by the giver than the taker. Consequently, the effects of supplier and buyer asset specificity are both enhancing and not attenuating the need for exchange governance: specific investments of both buyer and supplier increase the level of relational governance (Heide and John, 1990). As neither exchange party is able to turn to another exchange relationship due to the specific investments, both parties are willing to develop relational governance to assure cooperation in the future (Joshi and Stump, 1999). Therefore, we propose:

H8: Buyer asset specificity is positively related to relational governance.

4.05 Research Method

(i) Data collection

The research study was set up in cooperation with some major security services companies. Because business services differ on the level of tangibility and people-oriented character we chose to limit our investigation to buyers of a specific kind of services, that is security services, delivered by several suppliers to exclude possible effects of service-specific variables. Security services belong to facility services, an important part of the business services sector (Lehtonen and Salonen, 2005). In this business services setting, almost all relationships between buyer and supplier rely to some extent on both formal contracts and relational mechanism. However, for both security suppliers and their buyers it is unclear how transaction characteristics can influence the contractual agreement and how this formal agreement can influence the course of the relationship in the life after the purchase. In this research, we investigate the governance of the relationship between the security services provider and the buying organization, taking into account both contractual and relational issues. The security services performed relate to the supervision and protection of (im)mobile goods belonging to the customer. Some typical examples of the security services delivered are reception services and access control.

Before the questionnaires were sent to the buying organizations, a number of customers were interviewed to investigate the relevance of our research and the constructs incorporated. The interviewees were selected based on their experience with security services and several types of security services like reception services and access control were covered across the interviews. Next, a first draft of the questionnaire was developed and pre-tested within

another group of buying organizations. About 21 business customers filled in the questionnaire. Based on the analyses of the pre-test results, the questionnaire was adjusted when necessary. Finally, the questionnaire was sent to the manager responsible for the security services at the buying organizations. In total, about 464 surveys were sent. Completed surveys were received from 124 buying organizations (a response rate of 27%). Approximately half of the respondents' firms belong to the manufacturing sector. The size of the buying organization is expressed as the number of staff in terms of full time equivalents (FTE). Analyses indicate that small (FTE<250), medium, and big (FTE>3000) companies are represented in this research study.

(ii) Measures

To test the hypotheses, a number of constructs were incorporated in the empirical study. The measures used are mainly derived for transaction cost and relational exchange theory, as described below. The measurement items, rated by the buying organization, are illustrated in the appendix (Appendix B). Table 1 gives an overview of the main constructs and their correlations.

Table IV-1: Correlation Matrix^{a b}

| | SAS | BAS | EnvUnc | BehUnc | Cdeta | Cflex | RelGov | Perf |
|---------------|---------|--------|--------|---------|--------|--------|--------|------|
| SAS | 0.71 | | | | | | | |
| BAS | 0.31** | 0.71 | | | | | | |
| EnvUnc | -0.05 | 0.02 | 0.76 | | | | | |
| BehUnc | -0.44** | -0.04 | 0.03 | 0.80 | | | | |
| Cdeta | 0.31** | 0.16 | -0.10 | -0.31** | 0.91 | | | |
| Cflex | 0.34** | 0.09 | -0.01 | -0.13 | 0.41** | 0.90 | | |
| RelGov | 0.52** | 0.30** | -0.17 | -0.40** | 0.53** | 0.43** | 0.80 | |
| Perf | 0.52** | 0.12 | -0.10 | -0.46** | 0.37** | 0.43** | 0.66** | 0.76 |
| Mean | 4.48 | 4.45 | 3.79 | 3.73 | 4.86 | 5.12 | 5.42 | 5.02 |
| stdev | 1.11 | 1.39 | 1.06 | 1.30 | 1.37 | 1.40 | 1.09 | 1.17 |

Supplier asset specificity. In this research, the five items of supplier asset specificity (SAS) represent specific investments in physical, human and procedural aspects. The scaling of supplier asset specificity is based on items previously used in the research of Buvik and

^a Square root of AVE on diagonal

^b ** Correlation is significant at the 0.01 level (2-tailed).

Gronhaug (2000), Stump and Heide (1996), and Claro, Hagelaar, and Omta (2003). The items (e.g., Our supplier has to a great extent adjusted the service offering to the procedures of our organization) were measured on seven-point rating scale ranging from one “completely disagree”, to seven “completely agree”.

Buyer asset specificity. In this research, the scaling of buyer asset specificity (BAS) is based on items previously used in the research of Heide and John (1992) and Klein, Frazier, and Roth (1990). The six items of buyer asset specificity (e.g., Our organization has made significant investments in technology so that this supplier can deliver the requested service) were measured on seven-point rating scale ranging from one “completely disagree”, to seven “completely agree” and represent specific investments in physical, human, and procedural aspects.

Environmental uncertainty. The scaling to measure environmental uncertainty (EnvUnc) is not uniform across research studies. In this research study, the scaling of environmental uncertainty is based on three items reflecting the unpredictability of the market, technology (Buvik and Gronhaug, 2000), and price (Pilling et al., 1994). These items (e.g., Market conditions of our supplier are very unstable) were measured on seven-point rating scale ranging from one “completely disagree”, to seven “completely agree”.

Behavioural uncertainty. The scaling of behavioural uncertainty (BehUnc) is based on the research of Cannon, Achrol, and Gundlach (2000). In this research, behavioural uncertainty is measured in terms of four items and these items (e.g., Some aspects of the supplier’s service delivery are difficult to evaluate objectively) were rated on seven-point rating scale ranging from one “completely disagree”, to seven “completely agree”.

Contractual governance. In this research, contractual governance consists of contract detail and contract flexibility. The scaling of contract detail (Cdeta) is based on the research of Cannon, Achrol, and Gundlach (2000). The three items (e.g., With this supplier we have a specific, well-detailed formal agreement) were measured on seven-point rating scale ranging from one “completely disagree”, to seven “completely agree”. The scaling of contract flexibility (Cflex) is based on the research of Harris, Giunipero, and Hult (1998). The two items (e.g., The written, formal agreement with this supplier can be easily adapted to changing circumstances) were measured on seven-point rating scale ranging from one

“completely disagree”, to seven “completely agree”. Both the convergent and discriminant aspects of the two-dimensional contractual governance construct have been validated in previous research (Luo, 2002).

Relational governance. Relational governance (RelGov) is conceptualized using the relational exchange norm theory of Macneil (1980). The scaling of relational governance is based on the research of Ferguson, Paulin, and Bergeron (2005). The nine items reflect the relational norms of solidarity, harmonization of conflict, flexibility and information exchange. The items (e.g., It is expected that we keep each other informed about events or changes that may affect the other party) were measured on seven-point rating scale ranging from one “completely disagree”, to seven “completely agree”.

Performance. Customer-based evaluation of exchange performance in services (Perf) generally includes multiple facets such as overall customer satisfaction, willingness to recommend, and future purchase intentions such as likelihood to renew the contract and likelihood to increase patronage (Ferguson et al., 2005). The scaling of performance is based on items previously used in research of Cannon and Perreault (1999), Eggert and Ulaga (2002), Bolton, Smith, and Wagner (2003), and Jones and Suh (2000). The five items (e.g., We will recommend this supplier to other purchasing managers) were measured on seven-point rating scale ranging from one “completely disagree”, to seven “completely agree”.

Control variables. Next to economic and social antecedents, a number of other characteristics of the buying situation can influence the buyer-supplier relationship. Previous research on buyer-supplier relationships in business markets has suggested the relationship length between exchange partners as control variable (Cannon et al., 2000; Claro et al., 2003; Ferguson et al., 2005; Poppo and Zenger, 2002). In this research, relationship length (Rellength) is measured as how long the buying organization has been a customer of the supplying organization expressed in number of years (open ended question).

4.06 Analyses and Results

To assess construct validity and test the hypotheses, Partial Least Squares (PLS) appeared the most appropriate technique based on the properties of the data at hand. PLS makes no

distributional assumptions and has lower sample size requirements than other structural equation modelling techniques (Chin, 1998). The program used for these analyses is SmartPLS Version 2.0.M3 developed by Ringle, Wende, and Will (2005) of the University of Hamburg (Germany). While PLS is the most appropriate technique for testing the hypotheses, this method is variance-based and prediction-oriented. As a consequence, no proper overall goodness-of-fit measures are reported (Hulland, 1999). Moreover, measurement error is not modelled and component loadings tend to be overestimated while path coefficients tend to be underestimated (Chin, 1998). PLS software estimates both factor loadings and structural paths simultaneously (Chin, 1998). We follow a two-step approach based on Hulland (1999). First, the measurement model is evaluated to assess construct validity. Then, the hypotheses are tested by evaluating the structural model.

(i) Construct validity

To assess the reliability and validity of the measurements used, the measurement model is evaluated in PLS. The adequacy of the measurement model is assessed by examining individual item reliabilities and by evaluating convergent and discriminant validity. First, individual item reliabilities are assessed by examining the factor loadings of all items on their respective constructs. As a rule of thumb, each factor loading should be greater than 0.707 in order to share more variance with the component score than with error variance, (Chin, 1998). However, loadings of 0.50 or 0.60 are also acceptable if additional indicators exist in the block for comparison basis (Chin, 1998). In our research, only one item, loading on the construct of environmental uncertainty (i.e., environmental uncertainty related to technology – item envunc3), had to be removed because of low factor loading (loading of 0.21). All the other items have a significant factor loading on their respective construct and thus demonstrate a good level of item reliability, as illustrated in Table 2.

Next, composite reliability and average variance extracted are computed to assess convergent validity of the different constructs. Composite reliability (CR) is similar to Cronbach's alpha and can be computed using the internal consistency measure developed by Fornell and Larcker (1981). In this study, CR of each construct is between 0.72 and 0.94, thus above the threshold value of 0.70 suggested by Fornell and Larcker (1981) (Table 2). Average variance extracted (AVE) of a construct is the average variance shared between that construct and its items. Based on Fornell and Larcker (1981), AVE should be higher than 0.50, indicating that

at least 50% of measurement variance is captured by the construct. In this study, AVE of each construct is between 0.50 and 0.82, thus equal to or above the threshold value of 0.50 (Table 2).

Table IV-2: Assessment of measurement model

| Construct | Items | Loading | Composite Reliability | Cronbach alpha | Average Variance Extracted |
|-----------|---|--|-----------------------|----------------|----------------------------|
| SAS | sas1 sas2 sas3 sas4 sas5 | 0.72 0.79 0.71 0.51 0.78 | 0.83 | 0.76 | 0.50 |
| BAS | bas1 bas2 bas3 bas4 bas5 bas6 | 0.67 0.71 0.79 0.63 0.77 0.70 | 0.86 | 0.82 | 0.51 |
| EnvUnc | envunc1 envunc2 | 0.94 0.53 | 0.72 | --- | 0.58 |
| BehUnc | behunc1 behunc2 behunc3 behunc4 | 0.93 0.95 0.71 0.56 | 0.87 | 0.81 | 0.64 |
| Cdeta | condeta1 condeta2 condeta3 | 0.93 0.93 0.86 | 0.93 | 0.89 | 0.82 |
| Cflex | conflex1 conflex2 | 0.88 0.92 | 0.90 | --- | 0.81 |
| RelGov | relgov1 relgov2 relgov3 relgov4 relgov5 relgov6 relgov7 relgov8 relgov9 | 0.88 0.90 0.63 0.78 0.80 0.79 0.86 0.78 0.79 | 0.94 | 0.93 | 0.64 |
| Perf | perf1 perf2 perf3 perf4 perf5 | 0.89 0.85 0.80 0.52 0.66 | 0.87 | 0.81 | 0.57 |

Finally, discriminant validity of the different constructs is examined by means of AVE as suggested by Fornell and Larcker (1981). This test compares the correlation between any two constructs and the root-squared AVE of these two constructs. To have discriminant validity, the correlation should be smaller than the average of the two root-squared AVEs, indicating that the variance shared between any two constructs is lower than the AVE by the constructs. The results of the discriminant validity analysis are displayed in Table 1 with the correlations below the diagonal and the square roots of AVE on the diagonal. In this study, there is no correlation between any two latent constructs larger than or even equal to the square root of AVEs. Consequently, discriminant validity is supported and confidence is gained that all constructs in the model are indeed measuring different concepts.

(ii) Hypotheses testing

After assuring the reliability and validity of the constructs incorporated in the model, the hypotheses are tested by evaluating the structural model in PLS. To investigate the interaction effect of environmental uncertainty in PLS, we use the methodology assessed by Monte Carlo simulations (Chin et al., 2003). First, the indicator values are standardized and then product indicators are created by multiplying the indicators from the predictor and moderator variables. These product indicators reflect the latent interaction variable (Chin et al., 2003). The assessed relationships and their path coefficient with corresponding significance are reported in Table 3. We report one-tailed p-values for a priori directional hypotheses below. The R^2 values (variance explained) of the dependent constructs are fairly high with values of 0.32 for contract detail, 0.33 for contract flexibility, 0.46 for relational governance, and 0.54 for performance outcomes.

The first hypothesis (H1) states that in business services exchanges the level of contractual governance is positively related to the level of relational governance. The analyses reveal different results for the two dimensions of contractual governance: contract detail and contract flexibility. The impact of contract detail on relational governance is positive and significant ($\beta=0.16$; $p<0.01$) (H1a), but contract flexibility is not significantly related to relational governance ($p>0.05$) (H1b). Thus, we find support for H1a, but no support for H1b.

Table IV-3: Hypotheses testing ^a

| | Path Coefficient | Hypotheses |
|------------------------|------------------|-------------------------|
| Cdeta -> RelGov | 0.16** | H1a supported |
| Cflex -> RelGov | 0.13 | H1b not supported |
| Cdeta -> Perf | 0.04 | H2a not supported |
| Cflex -> Perf | 0.16** | H2b supported |
| RelGov -> Perf | 0.62*** | H2c supported |
| SAS -> Cdeta | 0.24*** | H3a supported |
| EnvUnc -> Cdeta | -0.21* | H3b not supported |
| SAS * EnvUnc -> Cdeta | 0.33 | |
| SAS -> Cflex | 0.30*** | H4a supported |
| EnvUnc -> Cflex | -0.11 | H4b supported |
| SAS * EnvUnc -> Cflex | 0.36*** | |
| SAS -> RelGov | 0.29** | H5a supported |
| EnvUnc -> RelGov | -0.15 | H5b not supported |
| SAS * EnvUnc -> RelGov | -0.08 | |
| BehUnc -> Cdeta | -0.21** | H6a supported |
| BehUnc -> Cflex | 0.01 | H6b partially supported |
| BAS * BehUnc -> Cflex | 0.27*** | |
| BehUnc -> RelGov | -0.20** | H7 supported |
| BAS -> Cdeta | 0.12 | H8 supported |
| BAS -> Cflex | -0.01 | |
| BAS -> RelGov | 0.13* | |
| Rellength -> Perf | 0.16** | |

The second hypothesis (H2) states that both the level of contractual governance (a, b) and the level of relational governance (c) are positively related to performance outcomes. Again, we find discrepant results for the two dimensions of contractual governance. Contract flexibility has a significant and positive impact on performance ($\beta=0.16$; $p<0.01$) (H2b), while contract detail is not significantly related to performance ($p>0.05$) (H2a). On the other hand, relational governance is positively related to performance outcomes ($\beta=0.62$; $p<0.001$) (H2c). Thus, we find support for H2b and H2c, but no support for H2a.

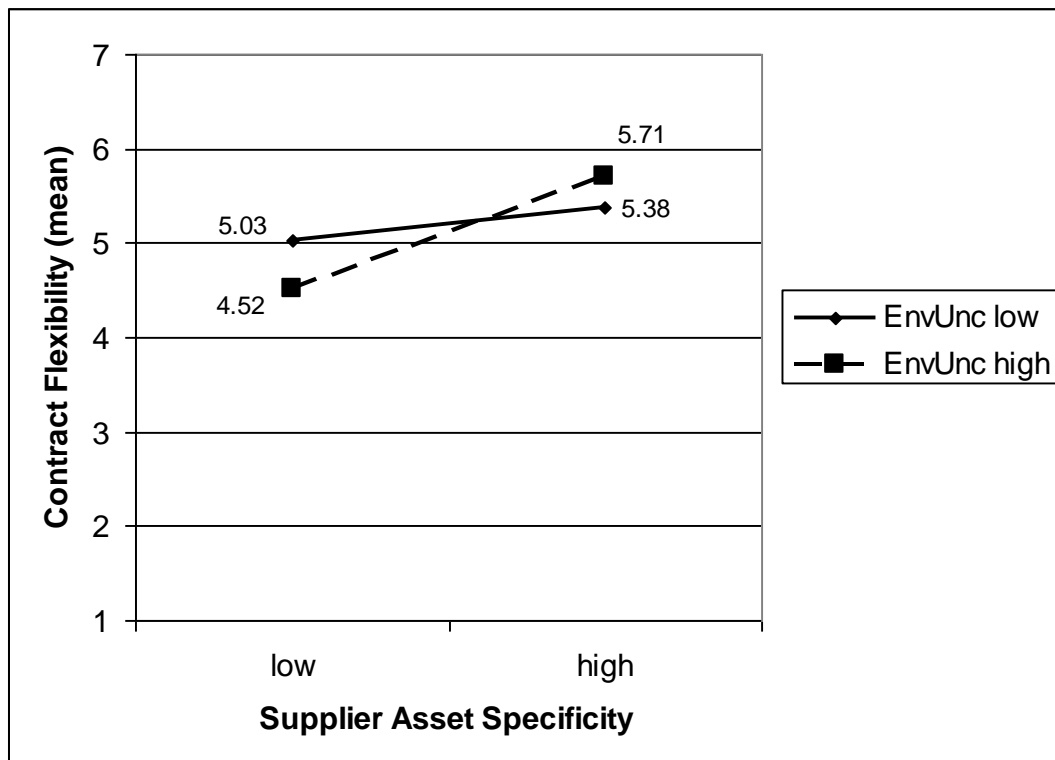
The third hypothesis (H3) states a positive impact of supplier asset specificity on contract detail (a) and this positive impact will be attenuated with increasing levels of environmental uncertainty (negative moderating effect) (b). The analyses reveal that supplier asset specificity does have a positive and significant impact on contract detail ($\beta=0.24$; $p<0.001$) (H3a).

^a * $p<0.05$ (one-tailed); ** $p<0.01$ (one-tailed); *** $p<0.001$ (one-tailed)

However, the interaction effect of supplier asset specificity and environmental uncertainty on contract detail is not significant ($p>0.05$) (H3b). Instead, environmental uncertainty has a direct negative impact on contract detail ($\beta = -0.21$; $p<0.05$). Thus, we find support for H3a, but no support for H3b.

The fourth hypothesis (H4) states a positive impact of supplier asset specificity on contract flexibility (a) and this positive impact will be enhanced with increasing levels of environmental uncertainty (positive moderating effect) (b). The results reveal that supplier asset specificity has a positive and significant impact on contract flexibility ($\beta=0.30$; $p<0.001$) (H4a). The interaction effect of supplier asset specificity and environmental uncertainty on contract flexibility is also significant and positive ($\beta=0.36$; $p<0.001$) (H4b): supplier asset specificity has a more profound impact on contract flexibility in highly uncertain environments (Figure 2). Thus, we find support for H4a and for H4b.

Figure IV-2: Interaction effect of supplier asset specificity and environmental uncertainty

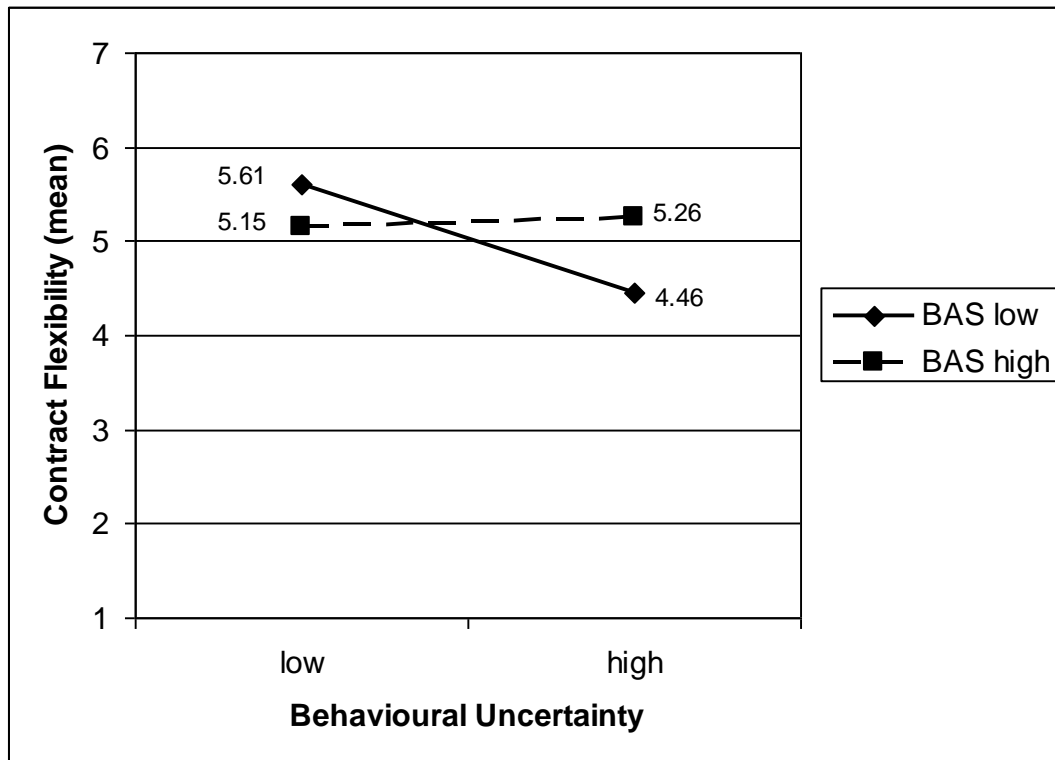


The fifth hypothesis (H5) states that supplier asset specificity has a positive impact on relational governance (a) and this positive impact will be enhanced with increasing levels of

environmental uncertainty (positive moderating effect) (b). The results indicate that supplier asset specificity is indeed positively and significantly related to relational governance ($\beta=0.29$; $p<0.01$), providing support for H5a. However, neither environmental uncertainty ($p>0.05$) nor the interaction effect of supplier asset specificity and environmental uncertainty ($p>0.05$) has a significant impact on relational governance. In this study, H5b is not supported.

The sixth hypothesis (H6) states that behavioural uncertainty is negatively related to contractual governance. Again, we find discrepant results for contract detail and contract flexibility. Behavioural uncertainty is negatively and significantly related to contract detail ($\beta= - 0.21$; $p<0.01$) (H6a) but the relationship between behavioural uncertainty and contract flexibility is not significant ($p>0.05$) (H6b). On the other hand, the results indicate that the interaction effect between behavioural uncertainty and buyer asset specificity on contract flexibility is significant ($\beta=0.27$; $p<0.001$). Behavioural uncertainty only has a negative impact on contract flexibility with low levels of buyer asset specificity. When the level of buyer asset specificity is high, behavioural uncertainty has no impact on contract flexibility (Figure 3). Thus, H6a is supported but H6b is only supported with low levels of buyer asset specificity.

The last two hypothesis state that behavioural uncertainty has a negative impact on relational governance (H7) and that buyer asset specificity is positively related to relational governance (H8). The results indicate that behavioural uncertainty is negatively and significantly related to relational governance ($\beta= - 0.20$; $p<0.01$) and buyer asset specificity has a significant impact on relational governance ($\beta=0.13$; $p<0.05$), providing support for both H7 and H8. The results also indicate that relationship length is a significant control variable for performance in the model ($\beta=0.16$; $p<0.01$).

Figure IV-3: Interaction effect of behavioural uncertainty and buyer asset specificity

4.07 Discussion

The written, formal agreement between service supplier and buying organization plays an important role in the governance of business services exchanges. Contracts are not only used to establish business relationships (Roxenhall and Ghauri, 2004); these formal agreements also have an impact on the buyer-seller relationship after the sourcing decision by influencing service exchange governance and the performance outcomes. The results of this study are in accordance with the complementarity view on contracting and relational issues (Lazzarini et al., 2004): the establishment of the contract facilitates the development of relational governance and both contractual and relational governance have a positive impact on performance outcomes. However, considering contractual governance as a two-dimensional construct reveals a difference in the impact of contract detail and the impact of contract flexibility on business services exchange governance. The level of contract detail is only indirectly related to performance outcomes through a positive impact on relational governance. Contract detail relates to the detailed roles and obligations of the parties specified in the contract and these are at the basis of developing common values and norms. Because of the details on roles and obligations in the contract, relational governance is enhanced and

mediates the impact of contract detail on performance outcomes. On the other hand, the level of contract flexibility is unrelated to relational governance, but directly related to performance outcomes. In this research study, contract flexibility means modification flexibility: the ability to adjust the terms of the agreement. When the terms of the contract can be adjusted to include additional needs or to better comply with current needs (high contract flexibility), the customer will evaluate the exchange in a more positive way as service delivery will better meet customer's expectations.

Transaction-specific investments made by the supplier, that is supplier asset specificity, directly influence both contractual and relational governance. Higher levels of supplier asset specificity relate to higher levels of relational governance, contract detail, and contract flexibility. Only the impact on the latter is positively moderated by environmental uncertainty: the impact of supplier asset specificity on contract flexibility will be higher with higher levels of environmental uncertainty. When environmental uncertainty increases, more flexibility in the contract is needed to include changes in the environment. More contract flexibility in highly uncertain environments also assures the supplier of continuity of the established relationship and as a consequence safeguards the specific investments made by the supplier against possible relationship termination because of changes in the environment.

On the other hand, transaction-specific investments made by the buyer, that is buyer asset specificity, only have a direct impact on relational governance. Buyer asset specificity is not directly related to contractual governance. As assumed, safeguards for specific investments made by the supplier included in the contract will also protect the buyer against opportunistic behaviour when transaction-specific investments are made. In conclusion, both buyer asset specificity and supplier asset specificity positively influence relational governance, but only supplier asset specificity has a direct impact on contract detail and on contract flexibility, especially in highly uncertain environments.

Because of the people-oriented and less tangible character of services, behavioural uncertainty is assumed to have a more profound impact in business services exchanges (Brouthers and Brouthers, 2003; Erramilli and Rao, 1993). In this research study in a security services setting, behavioural uncertainty has a direct impact on both contractual and relational governance. As hypothesized, higher levels of behavioural uncertainty implies lower levels of contract detail and relational governance. However, the hypothesized negative impact of behavioural uncertainty on contract flexibility appeared not overall significant. The hypothesized negative

relationship between behavioural uncertainty and contract flexibility only holds for lower levels of buyer asset specificity. In-depth analyses indicate that buyer asset specificity has a positive moderating effect on the negative relationship between behavioural uncertainty and contract flexibility: with increased levels of buyer asset specificity, the negative impact becomes smaller. Increasing levels of behavioural uncertainty imply more problems with monitoring of the performance and with the evaluation of changes needed to improve performance. As a consequence, the supplying organization will prefer less contract flexibility to diminish possible misuse of the flexible contract. On the contrary, when buyer asset specificity is high, the buying organization will prefer more contract flexibility to assure that the contract can be changed when needed and as such safeguard its investments by maintaining the current relationship. This positive influence of buyer asset specificity will attenuate the negative impact of behavioural uncertainty on contract flexibility, thus resulting in a positive moderating effect of buyer asset specificity.

While behavioural uncertainty influences both contractual and relational governance, environmental uncertainty only has an influence on contractual governance. The hypothesized moderating effect of environmental uncertainty on relational governance is not significant: higher levels of supplier asset specificity imply higher levels of relational governance irrespective of the level of environmental uncertainty. The impact of environmental uncertainty is different for the two dimensions of contractual governance. Environmental uncertainty has a positive moderating effect on the relationship between supplier asset specificity and contract flexibility but is directly and negatively related to contract detail, contrary to the moderating effect assumed in TCE theory. In highly uncertain environments, and apart from the level of supplier asset specificity, less detail on roles and obligations of the partners will be included in the contract because of increased bounded rationality. Environmental uncertainty increases the ex ante costs of establishing a contract and specifying the roles of each exchange partner, resulting in lower levels of detail in the contract. Whether or not contract detail is needed to safeguard against opportunistic behaviour caused by transaction-specific investments, higher environmental uncertainty will decrease the level of contract detail. When taking into account the full model, we remark that the level of contract detail can still increase in highly uncertain environments, because of the stronger and positive relationship between supplier asset specificity and contract detail.

(i) Limitations and directions for future research

Although the model investigated in this research study incorporates a large number of related constructs, a number of other aspects could be incorporated in future research as well. Including social antecedents such as trust, in addition to economic antecedents, will further enhance our understanding of exchange governance in business services settings (Zaheer and Venkatraman, 1995). Moreover, the impact of economic antecedents on exchange governance mechanisms can be influenced by interorganizational contingencies such as power asymmetries in the buyer-supplier relationships (Sheng, Brown, Nicholson and Poppo, 2006). Contract flexibility is here limited to modification flexibility, but termination flexibility is another part of contract flexibility (Young-Ybarra and Wiersema, 1999). While the focus in this study is on contractual and relational governance mechanisms, other coordination mechanisms such as strategic alliances, (joint) ownership or network governance can influence the buyer-supplier interaction. In this research, performance is based on customer-based evaluations of the service delivered, but more objective ways of measuring performance such as sales volume or profit should be included in future studies. Including data from both the supplier and buyer side, that is dyadic data, could provide more insight on the underlying reasons for certain relationships found. Moreover, as differences in transaction characteristics may affect the relationships under consideration (Gainey and Klaas, 2003; Williamson, 1996), the impact of contractual and relational governance on performance outcomes should be investigated in other business services segments such as consulting services or advertising. While in this research study business services exchange governance is investigated at a certain point in the life after the purchase, interfirm relationships should be considered as a developmental process in a longitudinal sense (Ring and Van de Ven, 1994). This also means that recursive relationships between the incorporated constructs can occur over time.

(ii) Managerial implications

In most business services settings, contracts are used to establish the buyer-seller relationship, but the initial agreements are not used to govern the relationship. This research study indicates that a well-established contract can improve the performance of the relationship both directly through contract flexibility and indirectly through the development of relational governance based on contract detail. This implies that when writing the contract, buying and selling organizations should place more emphasis on roles and obligations of both parties and on how

the agreement can be changed to incorporate additional needs or better fulfil current needs. Specifying detailed roles and obligations of both partners in the contract clearly communicates what each exchange partner is supposed to do and what they can expect from the other party during the relationship. In this environment, the development of common values and norms is encouraged and this enables the development of relationship governance. Allowing for flexibility in the contract assures both parties that the conditions of the relationship can be changed and avoids an early termination of the contract. A mutual willingness to build a long-lasting relationship is needed when one asks for contract flexibility. Contract flexibility also is a safeguard against opportunistic behaviour caused by transaction-specific investments. Finally, contract flexibility can directly improve customer-based evaluations of performance as customer's needs might be better fulfilled when certain changes are made in the contract.

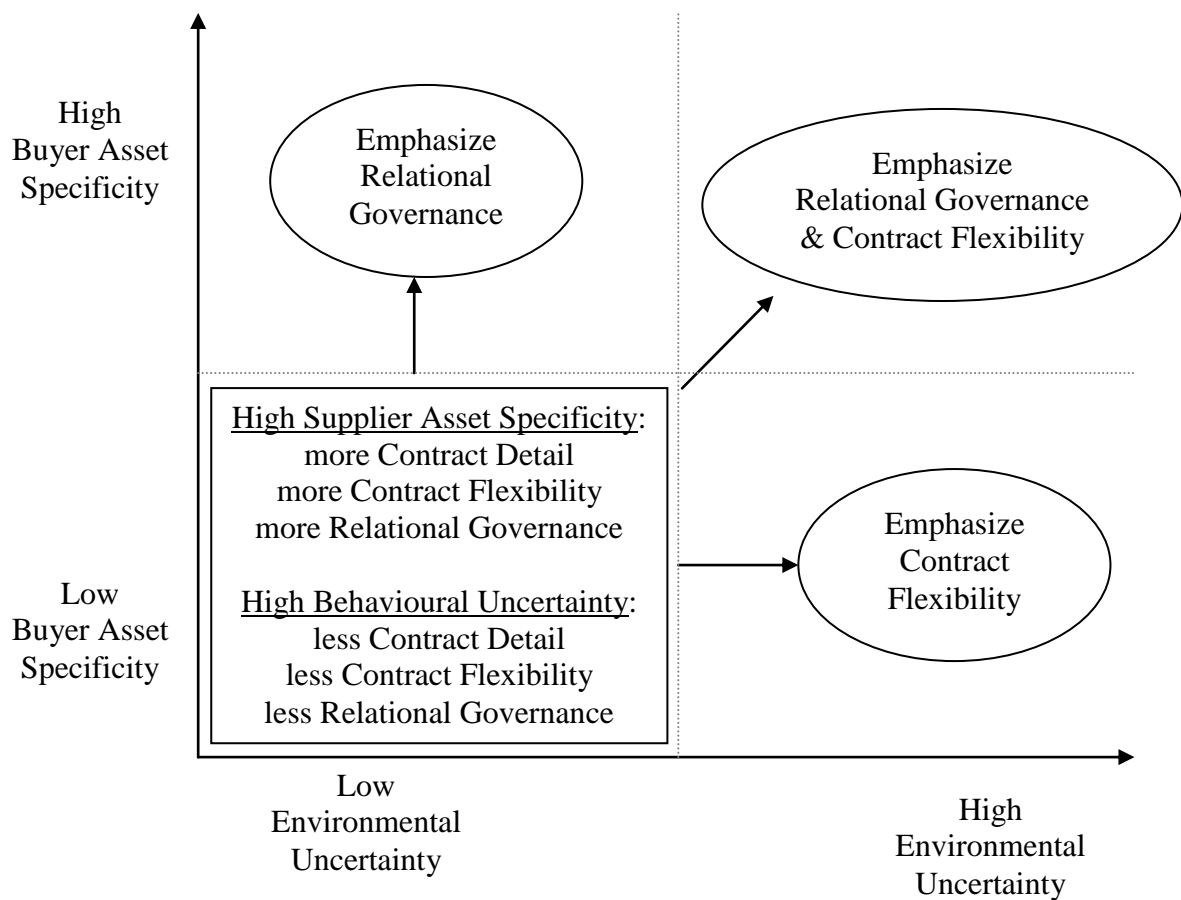
In business services settings, suppliers and buyers should consider contract detail and contract flexibility to protect their transaction-specific investments. As contract detail is influenced by just the supplying organization, the supplier might, based on previous experience, have more insight than the buyer in which specific investments will be needed for a specific service ex ante and how these can be protected against opportunism by specifying detailed roles and obligations in the contract. Consequently, contract detail can be established mainly by the supplying organization and might be more or less standardized without strongly customizing the details to a particular buying organization. Conversely, contract flexibility should not only consider the supplying organization, but also the buying organization, taking into account the transaction-specific investments made by that buyer. As a result, the buyer should participate more in determining the right level of flexibility in the contract.

Another major problem to be dealt with by managers in governing business services exchanges is the occurrence of behavioural uncertainty. The difficulty to monitor and evaluate the service delivered and to render objective assessments makes it difficult for business services exchange partners to establish and develop both contractual and relational governance. To encourage the development of relational governance and enhance the level of contract detail and contract flexibility, supplying organizations should decrease performance ambiguity from the point of view of the buying organization. Previous research studies have indicated that more trust between buyer and supplier can lead to less behavioural uncertainty (Gao et al., 2005). Other ways to decrease behavioural uncertainty are the establishment of

objective assessments of performance and then monitoring and reporting on performance achieved on those measures. However, in business services, establishing objective performance measures is not always obvious. Providing more information on what, how, when, and where the service is delivered can also decrease behavioural uncertainty from the point of view of the buyer.

In Figure 4, we summarize our findings for governing business service transactions. This scheme can be used for further theoretical development as well as for managerial guidance. In this governance scheme we make two important assumptions. First, we assume that there is a certain level of (supplier) asset specificity in the buyer-seller relationship. This assumption is based on TCE theory. If there is no asset specificity, market governance is the preferred governing mechanism instead of contractual or relational governance (David and Han, 2004; Williamson, 1975). Second, we assume that there is a certain level of behavioural uncertainty in the buyer-seller relationship. Due to the intangible nature of services and the high involvement of people in the exchange, a certain degree of behavioural uncertainty seems to occur in many business services settings (Brouters and Brouters, 2003).

Based on the governance scheme illustrated in Figure 4, business service transactions with a certain level of supplier asset specificity and with a certain level of behavioural uncertainty should be governed by both relational and contractual mechanisms. When both environmental uncertainty and buyer asset specificity are low, suppliers and buyers should spend attention to contract detail, contract flexibility, and relational governance when supplier asset specificity increases or when behavioural uncertainty decreases. When environmental uncertainty increases, more emphasis should be placed on contract flexibility to deal with unanticipated changes in the environment. Establishing a detailed contract *ex ante* will be more difficult in high uncertainty environments and a flexible contract allows both parties to adjust the contract to those changes. On the other hand, when buyer asset specificity increases, more emphasis should be placed on relational governance. The buyer will be more willing to develop relational norms to safeguard the investments from opportunistic behaviour and enhanced relational governance will result in positive outcomes for both parties. In a situation with high levels of buyer asset specificity and environmental uncertainty, both relational governance and contract flexibility need to be emphasized. Finally, we remark that emphasizing a particular governance mechanism does not completely rule out the other governance mechanisms under consideration.

Figure IV-4: Business services exchange governance scheme ^a

In conclusion, this study has some important implications for both theory and management. First, the results indicate that the formal contract is an important governance mechanism and should not be considered inferior to other governance mechanisms such as relational governance. This statement is especially true when the contract is viewed as a two-dimensional construct. Contract detail and contract flexibility each have their specific influence on the governance of the exchange. Contract detail and contract flexibility have different relationships with the economic antecedents of business service transactions, but both play their role in service exchange governance. Second, behavioural uncertainty appears very important in governing business services exchanges. The level of behavioural uncertainty in a particular service exchange strongly determines how the service transaction is governed. Third, not only the specific investments deployed by the supplier, but also those deployed by the buying firm can influence how contractual and relational governance relate to each other. This stresses the impact of the buying organization on the exchange governance

^a Under the assumption of a certain level of supplier asset specificity and a certain level of behavioural uncertainty

strategy. Fourth, this study provides a governance scheme for business services exchanges showing the potential for future research and managerial implications.

4.08 **References**

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Chapter V. Boundary-Spanning Behaviour of Frontline Service Employees: Impact on Performance Productivity and Quality

Darline Vandaele, Paul Gemmel, and David Bowen

5.01 Abstract

Frontline employee behaviour in services settings is generally considered to be linked with performance outcomes. However, few research studies have investigated the impact of both in-role and extra-role behaviour on performance related to productivity as well as quality. In this study, we address this research gap by investigating the impact of several dimensions of boundary-spanning behaviour, related to in-role and extra-role behaviour, on employee performed productivity and quality in a business services setting. Data from 1,174 frontline service employees is analyzed using structural equation modelling. The results indicate that extra-role behaviour (or non role-prescribed behaviour) does have a direct impact on performance productivity while its impact on performance quality is mediated by in-role behaviour (role-prescribed behaviour). The study clearly points out that managers need to consider the differential impact of both in-role and extra-role behaviour on performance outcomes.

5.02 Introduction

Because of customer-employee interaction in services settings, both academia and managers agree that there exists a “linkage” between the behaviour of frontline service employees and customers’ evaluation of the service delivered (Schneider et al., 2005). Several researchers have identified two types of employee behaviour: extra-role behaviour and in-role or role-prescribed behaviour (Brief and Motowidlo, 1986; George, 1991; O'Reilly III and Chatman, 1986; Werner, 1994). Research on these two types of behaviour is still prevalent during the last years (Bell and Menguc, 2002; Netemeyer et al., 2005; Piercy et al., 2006). In-role behaviour specifies the formal part of the employee’s job in the organization. Each task mentioned in the job description, for example addressing the customer in a friendly and polite

manner, belongs to in-role behaviour. Extra-role behaviour extends beyond formal role requirements (Van Dyne and LePine, 1998). Behaviour that is not or can not be described in a formal manner, such as communicating an opportunity for service improvement to co-workers or supervisor, is indicated as extra-role. Extra-role behaviour has also been referred to as organizational citizenship behaviour (Bateman and Organ, 1983; Bell and Menguc, 2002; Organ, 1988; Piercy et al., 2006)

The antecedents of employee behaviour have been well explored (Bettencourt et al., 2001; Tepper et al., 2001). Some antecedents frequently mentioned in literature are mood (George, 1991; Kelley and Hoffman, 1997), fairness (Bettencourt and Brown, 1997; George, 1991), role stressors (Bettencourt and Brown, 2003; MacKenzie et al., 1998), organizational commitment (Baruch et al., 2004) and job satisfaction (Bettencourt and Brown, 1997; Netemeyer et al., 1997). However, research studies on the impact of employee behaviour on performance outcomes have been less frequently reported and are mainly focused on the impact of organizational citizenship behaviour (Podsakoff et al., 2000). Most studies on extra-role behaviour explore its antecedents (e.g., Netemeyer et al., 1997) or its impact on performance outcomes (e.g., MacKenzie et al., 1993), without incorporating in-role behaviour. However, to fully capture the impact of employee behaviour on performance outcomes, both extra-role and in-role behaviours and their interrelationship should be incorporated (Piercy et al., 2006). Furthermore, in contrast to previous studies, we put forward that, when investigating the impact of frontline employee behaviour, performance should incorporate quality as well as productivity measures (Grönroos and Ojasalo, 2004; Singh, 2000): performance should not be limited to a general measure of performance (Piercy et al., 2006) or be tightly defined as customer's evaluation of service delivery (Bettencourt and Brown, 1997).

In general, both academia and managers agree that in-role behaviour has a positive influence on performance outcomes, and managerial practices to improve in-role behaviour are well-known (Baruch et al., 2004). However, extra-role behaviour displayed by frontline service employees, its interaction with in-role behaviour, and the impact on performance outcomes are less well understood and not always properly managed. Nonetheless, from a managerial viewpoint, it is interesting to know whether or not extra-role behaviour has a significant impact on performance outcomes in services settings. If not, this type of employee behaviour should not be promoted by management. On the other hand, if extra-role behaviour appears to

have a relevant influence on performance outcomes in services settings, more insight on ways to support this type of employee behaviour is needed.

The objective of this study is to address the concerns stated above by developing a model focused on the impact of both in-role and extra-role behaviour displayed by frontline employees on the performance productivity and quality in services settings. More specifically, we want to empirically investigate the interrelationships between different types of prosocial service behaviour or boundary-spanning behaviour displayed by frontline employees (classified as in-role or extra-role behaviour) and the impact on performed productivity and quality by these employees. We believe that researchers and managers are interested in the impact of different types of employee behaviour on performance. However, to the best of our knowledge, no study has yet empirically investigated the interrelationships between different types of boundary-spanning behaviour and their impact on individual performance outcomes including both productivity and quality. From a theoretical viewpoint, this study contributes to past research by extending the research on frontline employee behaviour: the focus is on the impact of different types of frontline employee behaviour, including both in-role and extra-role behaviour, on individual performance outcomes. Research is shifted from antecedents of frontline employee behaviour towards their consequences including both productivity and quality. From a managerial viewpoint, the results highlight those types of frontline employee behaviour (in-role versus extra-role) that do influence performance outcomes in services settings. As such, insight is gained into the management of frontline service employees and their behaviour.

First, the concept of frontline service employee behaviour and its different types are discussed. The concept of individual employee performance and its productivity and quality dimension are also briefly considered. We then develop our theoretical model and introduce hypotheses. The empirical study with a sample of 1,174 frontline service employees is presented next. Based on the analyses, the proposed model and hypotheses are tested. Finally, the implications of our results are discussed.

5.03 *Conceptual Background*

(i) Frontline service employee behaviour

In this research study, we focus on in-role and extra-role behaviour, two types of prosocial organizational behaviour. Prosocial organizational behaviour is defined by Brief and Motowidlo (1986) as behaviour which is (a) performed by a member of an organization, (b) directed towards an individual, group or organization with whom he or she interacts during work, and (c) performed with the intention of benefiting the one towards which the behaviour is directed. This rather broad definition encompasses different kinds of behaviour. First, prosocial organizational behaviour can be split into in-role and extra-role behaviour (Brief and Motowidlo, 1986; George, 1991), the focus of this research study. A second distinction is the target at whom the behaviour is directed (Brief and Motowidlo, 1986): customer-oriented or employee-oriented behaviour (Kelley and Hoffman, 1997). Third, employee behaviour can be either organizationally functional or dysfunctional (Brief and Motowidlo, 1986): behaviour does or does not contribute to the achievement of organizational objectives.

Prosocial organizational behaviour has been adjusted to the specific setting of services by Bettencourt and Brown (1997; 2003), referred to as prosocial service behaviour or boundary-spanning behaviour. This behaviour relates to the behaviour of customer-contact employees of service firms that derives from their unique position as boundary spanners of the firm (Bettencourt et al., 2001). Employees at the boundaries of the organization, in close contact with outsiders, have a strategic function: they are being placed between the external environment, including organization's customers, and the internal organization (Aldrich and Herker, 1977). Based on the services marketing and management literature, three types of boundary-spanning behaviour are identified by Bettencourt and Brown (2003): service delivery behaviour, internal influence behaviour, and external representation behaviour. Service delivery behaviour refers to the behaviours that directly impact customers: serving customers in a conscientious, responsive, attentive and courteous manner (Bettencourt and Brown, 2003). This first type of boundary-spanning behaviour is clearly customer-oriented and is more likely to be considered relatively more in-role (Bettencourt et al., 2005). The second type of boundary-spanning behaviour, internal influence behaviour, reflects the individual initiative taken to communicate to the firm and co-workers in order to improve the service delivered (Bettencourt and Brown, 2003). Internal influence behaviour is clearly employee-oriented and is also more likely to be considered relatively more extra-role

(Bettencourt et al., 2005). External representation behaviour represents the extent to which the frontline employee is a vocal advocate of the organization, its image and its assets to outsiders of that organization (Bettencourt and Brown, 2003). This third type of boundary-spanning behaviour is directed at outsiders of the service organization, including customers, potential customers, and potential employees of that organization and is more likely to be considered relatively more extra-role (Bettencourt et al., 2005). As such, the three dimensions of boundary-spanning behaviour are each belonging to a specific type of prosocial organizational behaviour. Table 1 gives an overview of the dimensions of boundary-spanning behaviour and their specific characteristics.

Table V-1: Boundary-spanning behaviour

| Boundary-Spanning Behaviour | In-role versus Extra-role | Directed at |
|--|----------------------------------|--------------------|
| <i>Service Delivery Behaviour</i> | In-role | Customers |
| <i>Internal Influence Behaviour</i> | Extra-role | Employees |
| <i>External Representation Behaviour</i> | Extra-role | Outsiders |

In this research study, we focus on the concept of boundary-spanning behaviour because both in-role and extra-role behaviour (Piercy et al., 2006) are incorporated. Moreover, the boundary-spanning construct is best tailored to the unique settings of service organizations (Bettencourt et al., 2001). Though this construct has been validated and its antecedents explored (Bettencourt and Brown, 2003; Bettencourt et al., 2005), further research is still required to investigate its impact on performance outcomes.

(ii) Performance outcomes

Researchers generally agree that the performance of frontline employees, especially in service firms, has a great significance for the organization's effectiveness (Hartline and Ferrell, 1996; Singh, 2000). As the delivery of the service occurs in the service encounter, during the interaction between frontline employee and customer, performance of the frontline employee is critical to customer satisfaction (Crosby et al., 1990; van Dolen et al., 2004). High levels of employee performance are assumed to enhance customer satisfaction and loyalty and to decrease employee's turnover intentions (Singh, 2000).

In services marketing literature, quality and productivity are considered as two related but distinct aspect of performance (de Jong et al., 2005; Singh, 2000). As indicated by Chase and Haynes (2000), quality and productivity should not be managed as separate processes and there does not need to be a trade-off between quality and productivity (Filiatrault et al., 1996). Without the inclusion of productivity parameters, little control over quality exists (Heskett et al., 1997). On the other hand, productivity can not be understood without considering quality (Grönroos and Ojasalo, 2004). Performance productivity is often related to quantifiable output which can be verified objectively (de Jong et al., 2005): meeting quantifiable and measurable performance output indicators (Singh, 2000). Two important determinants of performance productivity for frontline service employees are contact output and backroom work (de Jong et al., 2005; Singh, 2000). Contact output is related to those activities in which customer contact occurs. Possible productivity measures are average speed of answering a telephone call or the time spent interacting with customers (Singh, 2000). Backroom functions refer to those activities without involvement or contact with customers. Examples of productivity measures are providing accurate and complete paperwork and demonstrating knowledge about company procedures and practices (Singh, 2000). Performance quality relates to how the service is delivered (Singh, 2000) and often concerns subjective measures on process-oriented aspects (de Jong et al., 2005). Performance quality for frontline employees is associated with the interactional performance in frontline employee-customer exchanges. A unique aspect of performance quality in services settings is the emotional labour demanded from frontline employees in their interaction with customers, i.e. employees are required to display appropriate emotions (Singh, 2000). When interacting with customers, service employees are supposed to act in a way to build trust, demonstrate promptness and reliability, and give a sense of personal attention (Singh, 2000). As such, four determinants of performance quality are identified: trust, promptness, reliability and individualized attention (Singh, 2000).

5.04 *Hypotheses*

In general, prosocial behaviour is assumed to have a positive impact on performance outcomes. The research of Puffer (1987) suggests that prosocial behaviour indeed provides benefits to the organization and the study of Baruch and his colleagues (2004) empirically confirmed the positive association between prosocial behaviour and job performance. In this

research study, we also assume that the three dimensions of boundary-spanning behaviour – belonging each to a specific type of prosocial organizational behaviour (see Table 1) – will be positively related to performance productivity and quality. However, because of the specific characteristics of each boundary-spanning behaviour dimension, the link with performance outcomes will not be hypothesized identically across those dimensions.

The first type of boundary-spanning behaviour, service delivery behaviour, is considered as in-role behaviour (Bettencourt et al., 2005). In-role behaviour is assumed to have a positive impact on both the productivity and quality dimensions of performance as role prescriptions relate to the performance guidelines for a particular service role. A dependable role performance indicates the achievement of some minimal level of quantity and quality of performance (Katz, 1964). The research of Piercy and colleagues (2006) is among the first studies to empirically confirm the positive impact of in-role behaviour on performance outcomes. Next to being role-prescribed, service delivery behaviour is also considered customer-oriented (Bettencourt and Brown, 2003). When employee behaviour aims at helping the customer during the service delivery, employees are more likely to feel better about the outcome (Kelley and Hoffman, 1997). Previous research has indicated the positive impact of customer-oriented behaviour on customer satisfaction (Bettencourt and Brown, 1997) and on service quality (Kelley and Hoffman, 1997). The writing on the importance of customer service in popular and academic press also implicitly assumes the positive impact of role-prescribed behaviour directed at customers on performance (George, 1991). Therefore, we hypothesize:

H1a: Service delivery behaviour will have a positive impact on performance productivity.

H1b: Service delivery behaviour will have a positive impact on performance quality.

The other two types of boundary-spanning behaviour -internal influence behaviour and external representation behaviour- are likely to be considered more extra-role (Bettencourt et al., 2005). Though these types of behaviour are not incorporated in the formal job prescription, these may provide benefits to the organization (Puffer, 1987).

Internal influence behaviour relates to extra-role behaviour directed at co-workers (Bettencourt and Brown, 2003). While previous research has not found a significant relationship between employee-oriented behaviour and performance outcomes such as

customer satisfaction (Bettencourt and Brown, 1997), we believe this is in part because it has not taken into account the potential mediating role of customer-oriented employee behaviour. We assume that the impact of internal influence behaviour on performance outcomes will be indirect through its influence on service delivery behaviour. Internal influence behaviour indicates that individual initiative is taken in communications to the firm and co-workers (Bettencourt and Brown, 2003). These communications can deal with perceived environmental changes, newly developed or unfulfilled customer needs, and opportunities to improve service delivery (Aldrich and Herker, 1977). This type of behaviour increases the ability to perform the role-prescribed service delivery behaviour: best practices are spread throughout the firm, insight into potential efficiency increases are gained, and potential problems are detected earlier or even avoided. Consequently, the required service will be delivered in a more conscientious, dependable and responsive manner, enhancing the performed service delivery behaviour (Bettencourt and Brown, 2003). Moreover, based on socialization research, employees who perform one type of helping behaviour (e.g., employee-oriented) are more likely to perform other types of helping behaviour (e.g., customer-oriented) (Kelley and Hoffman, 1997). Empirical research has confirmed this positive relationship between employee-oriented and customer-oriented prosocial behaviour (Kelley and Hoffman, 1997). Furthermore, the research of Piercy and colleagues (2006) states that the impact of extra-role behaviour on performance outcomes is mediated by role-prescribed behaviour. We propose that internal influence behaviour will only have a positive impact on performance outcomes because of its positive impact on service delivery behaviour.

H2: Internal influence behaviour will have a positive impact on service delivery behaviour.

External representation behaviour relates to behaviour directed at outsiders of the organization (Bettencourt and Brown, 2003), including customers, potential customers, and potential employees. External representation behaviour supports the organizational image, enhances its social legitimacy, and makes the organization more visible (Aldrich and Herker, 1977). As such, the organization's ability to attract and retain the best workforces increases, resulting in a more effective organizational functioning (Katz, 1964). Better skilled workforce -with enhanced technical and social skills- will be better able to deliver the service in a conscientious, dependable and responsive manner (Westbrook and Peterson, 1998), thus increasing service delivery behaviour. So the impact of external representation behaviour on performance productivity and quality will be mediated by service delivery behaviour. As the

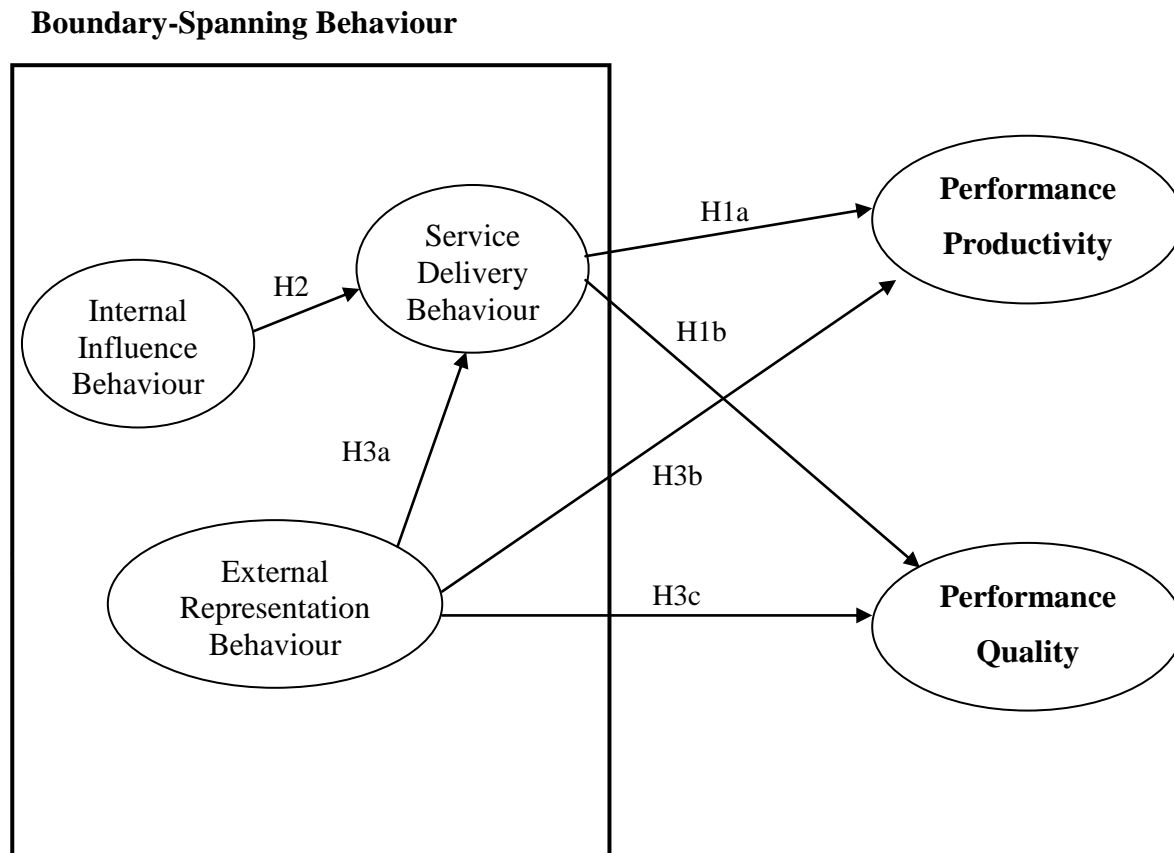
research of Piercy and colleagues (2006) empirically confirmed, the impact of extra-role behaviour on performance outcomes is indirect, through the influence on in-role behaviour. In addition, we also assume a direct effect of external representation behaviour on performance. Next to the influence on (potential) employees, external representation behaviour relates to other outsiders of the organization as well, such as customers and potential customers (Bettencourt and Brown, 2003). Previous research has suggested that customer-oriented prosocial behaviour has a direct positive influence on performance outcomes because people tend to evaluate performance outcomes more favourably when these are the result from behaviours with positive associations towards them (Kelley and Hoffman, 1997). When frontline service employees are vocal advocates of an organization and its services to outsiders of that organization, they will be more motivated to deliver high performance outcomes -both on productivity and quality- to keep up with the service level they are proclaiming. Previous research has empirically confirmed the direct impact of extra-role customer-oriented behaviour on performance outcomes such as customer satisfaction (Bettencourt and Brown, 1997). Therefore, in addition to the indirect effect of external representation behaviour on performance outcomes through service delivery behaviour, we also assume a direct influence of external representation behaviour on performance productivity and quality. Thus, service delivery behaviour will only partially mediate the influence of external representation behaviour on performance productivity and quality.

H3a: External representation behaviour will have a positive impact on service delivery behaviour.

H3b: External representation behaviour will have a positive impact on performance productivity.

H3c: External representation behaviour will have a positive impact on performance quality.

The above hypotheses and the resulting model on the impact of the types of boundary-spanning behaviour on frontline service employees' performance productivity and quality are illustrated in Figure 1.

Figure V-1: Impact of boundary-spanning behaviour on performance

(i) Sample and procedure

As the service employee often is the sole contact between company and customer, employee behaviour is especially important in services settings (Bettencourt et al., 2005; Netemeyer et al., 2005). Despite the growing importance of business services, a recent literature review of Johnston (2005) revealed that most papers in leading publications for service research are concerned with business-to-consumer services. As for research on employee behaviour, most studies are set in consumer settings such as retail banking (Bettencourt and Brown, 1997; Kelley and Hoffman, 1997) or sales (George, 1991). Research on employee behaviour in business services settings is rare and mainly focuses on selling organizations (Piercy et al., 2006). Nonetheless, more research in other business services settings is needed as those organizations also have to deal with frontline employees spanning the boundary between buyer and supplier organizations, such as for the delivery of financial services (Bettencourt and Brown, 2003) or other. This research study was set up in cooperation with a major

security services company. Security services belong to facility services, an important part of the business services sector (Lehtonen and Salonen, 2005). The frontline employees incorporated in the study are the security agents performing the security services on the customer's premises. As such, the security agents are the main interface between the supplying and buying organization and thus represent an important asset of the security services provider. The security services performed relate to the supervision and protection of (im)mobile goods belonging to the customer. Some typical examples of the security services delivered are reception services and access control.

Before the questionnaires were sent to the security agents, about 10 employees were interviewed to investigate the relevance of our research question and the constructs incorporated. The interviewees were selected based on their experience with security services in general and with the employer organization in particular. The several types of security services like reception services and access control were covered across the interviews. Next, a first draft of the questionnaire was developed and pre-tested within another group of security agents. About 30 agents filled in the questionnaire in the presence of a research assistant. As such, uncertainties or remarks could be communicated immediately and detailed information was gathered. Based on the analyses of the pre-test results, the questionnaire was adjusted when necessary. Finally, the questionnaire was sent to two groups of security agents, each employed in another region within the same country. The package sent included an introductory letter assuring confidentiality and a postage-paid return envelope. In total, 3,666 surveys were sent. Completed surveys were received from 1,174 security agents for a response rate of 32.02%. Table 2 gives an overview of the respondent profile. Approximately 88% of the respondents were male. The median age was between 40 and 49 years. The median length of job experience was between 5 to 10 years.

Table V-2: Respondent profile

| Sex | | Age | | Job Experience | |
|------------|-------|-------------|-------|-----------------------|-------|
| Male | 88.4% | <20 years | 0.5% | < 2 years | 15.1% |
| Female | 11.6% | 21-29 years | 17.1% | 2 to 5 years | 21.5% |
| | | 30-39 years | 26.8% | 5 to 10 years | 22.9% |
| | | 40-49 years | 32.0% | 10 to 15 years | 16.8% |
| | | 50-59 years | 21.0% | > 15 years | 23.7% |
| | | 60 or older | 2.6% | | |

(ii) Measures

Boundary-spanning behaviour. The operationalization of boundary-spanning behaviour is based on prior research developing and validating measures for the three types of behaviour (Bettencourt and Brown, 2003; Bettencourt et al., 2005). Three items are used to measure service delivery behaviour (e.g., I follow up on customer requests and problems in a timely manner), internal influence behaviour (e.g., I make constructive suggestions for improvement of the delivered security services), and external representation behaviour (e.g., I recommend this security company to outsiders as a great place to work). Based on the interviews and pre-test, the wording of some items is adjusted to specific requirements for the security sector (Appendix C). The respondents are asked to indicate their level of agreements with the statements on a seven-point rating scale. As did Podsakoff, Ahearne and MacKenzie (1997), the measures of behaviour were acquired from the employees themselves rather than from their supervisors. Due to the nature of boundary-spanning behaviours, using only management ratings of boundary-spanning behaviour is not advised (Bettencourt et al., 2005). The results of management ratings might be more biased as management is limited in its knowledge of the degree to which an employee engages in these behaviours. Though the use of multiple informants, that is including both the ratings of employees and supervisors, is preferred (Bettencourt and Brown, 2003), the research setting made this impossible. In the security services company involved in the study, one supervisor can be responsible for over a hundred agents, making it an impossible task for the supervisor to distinctly rate each agent's behaviour.

Performance productivity and quality. Performance productivity and quality are measured by the Singh (2000) scale developed to provide self-ratings of performance. Performance

productivity consists of 8 items representing contact output (e.g., meeting your quotas and targets) and backroom work (e.g., providing accurate and complete paperwork). For the latter, one item was added compared to Singh's (2000) operationalization. During the interviews with the security agents, accurate and timely communication between colleagues appears as an important aspect of performance in the back-office. Performance quality consists of 16 items referring to the 4 dimensions as defined by Singh (2000): trust (e.g., taking the initiative to help your customers – within what is allowed – even when it is not part of your responsibility), promptness (e.g., immediately answering a call – by phone or otherwise), reliability (e.g., providing accurate and correct information to the customer) and individualized attention (e.g., listening attentively to understand the concerns of the customer). The respondents are asked to rate their performance level of each item, compared with an average security agent in their company, on a seven-point rating scale (Appendix C). Previous researchers have suggested that employee self-reports of performance are significantly correlated with judgments made by third parties like customers (Schneider et al., 1996). Moreover, self-ratings have been found to correlate highly with manager ratings of employee performance (Churchill et al., 1985) and to be less biased than management's ratings (Scullen et al., 2000). However, common method variance attributable to sources can bias results when only self-ratings are used (Podsakoff et al., 2003). Therefore, common method bias needs to be controlled for as this can provide a potential rival explanation for the observed pattern of correlations among constructs (Podsakoff et al., 2003).

Control variables. Next to the respondents' sex, age and job experience, another construct, that is role ambiguity, was included in the questionnaire to enable us to control for common method bias. Role ambiguity, referring to lack of information needed for an employee to effectively enact his or her role (Bettencourt and Brown, 2003; Rizzo et al., 1970), was measured based on the scale developed by Rizzo and colleagues (Rizzo et al., 1970). The respondents are asked to indicate their level of agreements with three statements (e.g., I know exactly what is expected of me in the job (reversed scaled)) on a seven-point rating scale (Appendix C).

5.05 *Analyses and Results*

The analytical approach consists of two steps. First, the validity of the behaviour and performance constructs is assessed using a combination of exploratory and confirmatory factor analyses. One of the two sample groups is used for exploratory factor analysis (n=487; response rate of 29.66%), the other sample group (employed in another region within the same country) for confirmatory factor analyses (n=687; response rate of 33.94%). Second, the hypotheses are tested using the second sample group.

(i) Validation of constructs

To assess the dimensionality of the customer-oriented boundary-spanning behaviour and the performance constructs, exploratory factor analyses are performed using the first sample group. We opt for principal axis factoring as extraction method (Conway and Huffcutt, 2003) and an oblique rotation because the determinants are not supposed to be independent (Heck, 1998). The exploratory factor analysis on the statements of boundary-spanning behaviour results in three factors in accordance with the boundary-spanning behaviours as defined by Bettencourt and Brown (2003): service delivery, internal influence, and external representation behaviour. To assess the dimensionality of the performance construct, performance productivity and performance quality are assessed separately. The exploratory factor analysis conducted for the performance productivity construct results in two dimensions in accordance with the two dimensions as indicated by Singh (2000): contact output and backroom work. For performance quality, the exploratory factor analysis also results in two dimensions. The first dimension corresponds with the trust dimension and the second dimension encompasses the promptness, reliability, and individualized attention dimension of performance quality as defined by Singh (2000).

To assess the reliability and validity of boundary-spanning behaviour, performance productivity, and performance quality, a confirmatory factor analysis is conducted using the second sample group. After the deletion of two items with low reliability (Squared Multiple Correlation < 0.40) the seven-factor model provides an acceptable fit. Though the chi-square statistic is significant with chi-square value of 645.88 and 278 degrees of freedom, the other fit indices are acceptable: NFI is 0.97, CFI is 0.99, RMSEA is 0.03, SRMR is 0.04, and GFI is 0.89. Based on the large and significant loadings of the items, the high Composite Reliability

(CR > 0.70) (see Table 3), and acceptable Average Variance Extracted ($AVE \geq 0.50$), the reliability and convergent validity of the seven factors are acceptable. Discriminant validity is assessed by comparing the extracted variance of the construct with the shared variance between constructs: a construct should share more variance with its measures than it shares with other constructs. The square root of AVE should be higher than the correlation between the related constructs. In Table 3, the square root of AVE is indicated on the diagonal and the correlations are indicated below the diagonal. Table 3 indicates that the three types of boundary-spanning behaviour, the two dimensions of performance productivity, and the two dimensions of performance quality are meaningfully distinct and thus have discriminant validity.

Table V-3: Correlations between constructs^{a b}

| Construct | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|--------------------------------------|------|------|------|------|------|------|------|------|------|
| 1. Service Delivery Behaviour | 0.70 | | | | | | | | |
| 2. Internal Influence Behaviour | 0.37 | 0.80 | | | | | | | |
| 3. External Representation Behaviour | 0.37 | 0.35 | 0.86 | | | | | | |
| 4. Productivity Dimension 1 | 0.41 | 0.38 | 0.36 | 0.82 | | | | | |
| 5. Productivity Dimension 2 | 0.49 | 0.38 | 0.37 | 0.61 | 0.73 | | | | |
| 6. Quality Dimension 1 | 0.34 | 0.26 | 0.26 | 0.39 | 0.36 | 0.82 | | | |
| 7. Quality Dimension 2 | 0.47 | 0.34 | 0.35 | 0.56 | 0.61 | 0.59 | 0.87 | | |
| 8. Productivity | 0.48 | 0.42 | 0.40 | 0.91 | 0.88 | 0.42 | 0.65 | 0.85 | |
| 9. Quality | 0.45 | 0.33 | 0.34 | 0.52 | 0.53 | 0.91 | 0.88 | 0.59 | 0.82 |
| Mean | 6.47 | 5.76 | 5.39 | 5.70 | 5.99 | 5.75 | 6.13 | 5.84 | 5.93 |
| s.d. | 0.64 | 1.20 | 1.41 | 1.00 | 0.86 | 1.22 | 1.05 | 0.84 | 1.02 |
| Composite Reliability | 0.75 | 0.84 | 0.89 | 0.86 | 0.77 | 0.80 | 0.96 | 0.83 | 0.80 |

To assess the dimensionality of performance, a second confirmatory factor analysis is performed based on the indicators and resulting factors of performance productivity and performance quality. The model with two higher-order dimensions, i.e. productivity and quality, provides a feasible fit despite the significant chi-square statistic (chi-square value of 318.04 and 114 degrees of freedom): NFI is 0.98, CFI is 0.99, RMSEA is 0.03, SRMR is 0.04, and GFI is 0.92. The factors of both productivity and quality have a high and significant loading on the higher-order dimensions of productivity and quality respectively. The higher-order dimensions have an acceptable reliability and convergent validity (CR > 0.70; $AVE > 0.50$). Performance productivity and performance quality also have discriminant validity as

^a All correlations are significant ($p < 0.01$)

^b Square Root of AVE is mentioned on diagonal

the extracted variance of both constructs is higher than the shared variance between the two constructs (Table 3). Another indicator of discriminant validity between productivity and quality is the chi-square difference test between the unrestricted model and the restricted model in which the intercorrelation between productivity and quality is set to one (chi-square difference: 159.65; $df(1)$; $p < 0.01$).

(ii) Model estimation and hypotheses testing

To test the hypotheses, a structural model, as illustrated in Figure 1, is estimated while adding direct relationships from internal influence behaviour to performance productivity and to performance quality. Because all of the data are obtained from one data source, i.e. rating of frontline employees, common method variance needs to be controlled for to exclude potential rival explanations for observed patterns of correlations (Podsakoff et al., 2003). Therefore, the partial correlation procedure as described by Podsakoff and colleagues (2003) is used. Though this methodology does not control for all possible causes of common method biases, it does account for its potential effects on the assessed relationships (Podsakoff et al., 2003). In the partial correlation procedure, a variable that on theoretical grounds should not be related to at least one other variable included in the study is used as marker variable. Any observed relationship between that variable and any of the variables in the study can then be assumed to be due to common method variance (Podsakoff et al., 2003). In this study, role ambiguity is used as a marker variable to partial out common method variance. Role ambiguity is not directly related to any of the three boundary-spanning behaviour dimensions as job satisfaction and organizational commitment fully mediate this effect (Bettencourt and Brown, 2003). In previous research the impact of common method variance in organizational behaviour research has been assumed limited or even non-existing (Bettencourt et al., 2001; MacKenzie *et al.*, 1991; 1993; Podsakoff and MacKenzie, 1994), and was thus not considered when discussing the empirical results. However, as common method variance can be in part responsible for the observed effects in a model without marker variable, we report the results of the structural model with marker variable to sort out possible effects of common method variance on the assessed relationships.

The effect of different types of boundary-spanning behaviour on performance productivity and performance quality is estimated in one structural model. Despite the significant chi-

square statistic, the model provides a feasible fit with an acceptable level for the reported fit indices (Table 4).

Table V-4: Model estimation ^a

| | | Service Delivery Behaviour | Performance Productivity | Performance Quality |
|-----------------------------------|---------|----------------------------|---------------------------|---------------------------|
| Service Delivery Behaviour | Beta | --- | 0.53^{***} | 0.56^{***} |
| | T-value | | 5.29 | 5.05 |
| Internal Influence Behaviour | Beta | 0.34^{***} | 0.16^{**} | 0.02 |
| | T-value | 4.26 | 2.65 | 0.40 |
| External Representation Behaviour | Beta | 0.25^{***} | 0.19[*] | 0.14 |
| | T-value | 3.62 | 1.98 | 1.75 |
| R ² | | 0.36 | 0.50 | 0.41 |
| Model Fit | | | | |
| Chi-square | | 853.08 | | |
| df | | 357 | | |
| RMSEA | | 0.04 | | |
| NFI | | 0.97 | | |
| CFI | | 0.98 | | |
| SRMR | | 0.06 | | |
| GFI | | 0.88 | | |

The first hypothesis (H1) states that service delivery behaviour will have a positive impact on (a) performance productivity and (b) performance quality. The results provide support for both H1a ($t = 5.29$; $p < 0.001$) and H1b ($t = 5.05$; $p < 0.001$). The second hypothesis (H2) states that internal influence behaviour will have a positive impact on service delivery behaviour. The results provide support for H2 ($t = 4.26$; $p < 0.001$). Moreover, internal influence behaviour also has a direct positive impact on performance productivity ($t = 2.65$; $p < 0.01$) but is not directly related to performance quality ($t = 0.40$; $p > 0.05$). The third hypothesis (H3) states that external representation behaviour will (a) have a positive impact on service delivery behaviour, (b) have a positive direct impact on performance productivity, and (c) have a positive direct impact on performance quality. Thus, hypothesis 3 assumes that the

^a * $p < 0.05$
 ** $p < 0.01$
 *** $p < 0.001$

positive impact of external representation behaviour on performance productivity and performance quality is only partially mediated by service delivery behaviour: external representation behaviour should have a positive impact on service delivery behaviour (H3a), on performance productivity (H3b), and on performance quality (H3c). The results provide support for H3a ($t = 3.62$; $p < 0.001$) and H3b ($t = 1.98$; $p < 0.05$). However, the results do not indicate a significant relationship between external representation behaviour and performance quality ($t = 1.75$; $p > 0.05$), not supporting H3c. In the model, 36% of the variance in service delivery behaviour, 50% of the variance in performance productivity, and 41% of the variance in performance quality are explained.

5.06 Discussion

The results of this research study support our assumption that the behaviour of frontline service employees is of importance for business organizations outside the selling context and that the impact on performance outcomes differs across the different types of boundary-spanning behaviour. In-role and extra-role behaviour do not influence performance outcomes in the same way: in-role behaviour, i.e. service delivery behaviour, has a more significant impact on employee performance outcomes than extra-role behaviour, i.e. internal influence behaviour and external representation behaviour. According to general consensus, in-role behaviour directly influences both performance productivity and performance quality. The results also indicate that extra-role behaviour is an antecedent of in-role behaviour, consistent with the research of Piercy and colleagues (2006). However, in contrast with the results of the latter, in-role behaviour is not a full mediator for the impact of extra-role behaviour on performance outcomes in our study. On the one hand, in-role behaviour does fully mediate the impact of extra-role behaviour on performance quality. Being a vocal advocate of an organization (external representation behaviour) and communicating internally (internal influence behaviour) will enhance performance quality only through delivering the service in a more conscientious, responsive and courteous manner (service delivery behaviour). On the other hand, in-role behaviour is only a partial mediator for the impact of extra-role behaviour on performance productivity in this study. Both types of extra-role behaviour -internal influence behaviour and external representation behaviour- have a direct influence on performance productivity. Because of external representation behaviour displayed by frontline service employees, the organization is able to attract and retain the best workforces, thus

increasing its opportunity to deliver enhanced performance productivity. Moreover, performance productivity is more quantifiable, measurable, and visible to employees than performance quality (Singh, 2000). Thus, individual initiative taken by the frontline employee to communicate to the firm and co-workers (internal influence behaviour) will plausibly be more focused on aspects related to performed productivity. In conclusion we remark that to fully estimate the impact of frontline employee behaviour on performance outcomes in business services settings, both in-role and extra-role behaviour should be incorporated. When only in-role behaviour is considered, the performed *productivity* of frontline employees will be underestimated as extra-role behaviour also directly influences performance productivity. When only extra-role behaviour is incorporated, the impact on performed *quality* of frontline employees will be underestimated as in-role behaviour fully mediates the effect of extra-role behaviour on performance quality.

Previous studies have suggested that employee-oriented behaviour does not have a significant impact on service quality (Kelley and Hoffman, 1997) or customer satisfaction (Bettencourt and Brown, 1997). The results of our study on performance quality are thus consistent with previous research and further broaden the findings by indicating an indirect relationship between employee-oriented behaviour and performance quality because of the moderating effect of customer-oriented behaviour. Contrary to previous research in consumer settings (Bettencourt and Brown, 1997), external representation behaviour, supposed to be partly customer-oriented, does not have a direct impact on performance quality. However, in our study, services are delivered towards business organizations, and not consumers, making it rather implausible for frontline employees to have contact with those business customers outside their job environment. As such, external representation behaviour of frontline employees in business services settings is more oriented towards potential employees than towards potential customers. Consequently, when investigating extra-role behaviour of frontline service employees in business settings, not only employee-oriented behaviour displayed during the job (internal influence behaviour) should be considered; behaviour directed at (potential) employees off duty (external representation behaviour) can also affect performance outcomes.

(i) Limitations and directions for future research

As indicated by this study, employee behaviour plays a role in business organizations outside the selling context. However, in these settings, sales performance is not a feasible indicator to

measure performance outcomes. As illustrated in this study, indicators related only to quality do not offer a full overview of the relevant performance outcomes. Based on the research of Singh (2000), we included individual performed productivity and quality of the frontline service employee. Though employee performance is assumed to positively influence customer satisfaction (van Dolen et al., 2004) and organizational effectiveness (Hartline and Ferrell, 1996), we did not investigate these relationships in our study. Future research could incorporate other indicators of performance outcomes such as organizational effectiveness or customer purchase intent (Netemeyer et al., 2005).

The results of this research study also indicate the need for further research on boundary-spanning behaviour and the customer- versus employee-oriented character of external representation behaviour in business services settings. More research is also needed on the interrelations between different types of boundary-spanning behaviour and their impact on performance outcomes, especially performance productivity. The impact of these interrelations on antecedent factors such as mood, justice, and job satisfaction and their occurrence in other business or consumer sectors should be further investigated. In this research study, we focused on one specific business and one specific company to exclude the impact of differences in company policy or other. However, the research setting made it impossible to incorporate both employee and manager's ratings. While the partial correlation procedure accounts for common method variance in the assessed relationships, this methodology could not control for all possible sources of common method variance. Therefore, the validity of our model should be further investigated in other circumstances. Furthermore, the association between boundary-spanning behaviour and noncompliant behaviour, i.e. behaviour with negative organizational outcomes (Puffer, 1987), is another research area awaiting to be further explored.

(ii) Managerial implications

Based on the linkage research (e.g. Schneider et al., 2005), management of service organizations should pay more attention to the internal organizational practices and employee perceptions that have an impact on performance outcomes (Pugh et al., 2002). In services settings, performance outcomes are often related to the service quality delivered. Productivity is often left out of consideration in spite of previous research studies such as those of Singh (2000), Grönroos and Ojasalo (2004), and others. However, this research study reveals that

considering only performance quality will overestimate performance outcomes of in-role behaviours and underestimate those of extra-role behaviours. Extra-role behaviour displayed by frontline service employees, i.e. internal influence behaviour and external representation behaviour, has a direct impact on performance productivity. Though in-role behaviour is an important type of employee behaviour, management in business services settings should try to encourage both in-role and extra-role behaviour of frontline employees to achieve enhanced performance productivity and quality. When managers focus only on promoting in-role behaviour of frontline service employees, potential performance increases are lost. Therefore, in services settings, managers should support extra-role as well as in-role behaviour. However, as the benefits of extra-role behaviour cannot be easily monitored (Puffer, 1987), stimulating extra-role behaviour might be more difficult than stimulating in-role behaviour. Moreover, in business services settings, not only extra-role behaviour directed at employees during the job influences performance outcomes but behaviour displayed by employees off duty also plays a role. When employees become real vocal advocates of the company, this must allow management to attract high-performing frontline employees. Isn't this the start of organizational effectiveness?

5.07 References

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Chapter VI. Conclusion and Discussion

The main goal of this dissertation is to investigate the exchange between a service supplier and a buying organization. More specifically, we want to examine how performance outcomes of buyer-seller interactions in business services settings can be enhanced by means of contractual and relational governance and frontline employee behaviour. In this chapter, the research results are briefly summarized. Next, several limitations are described and possibilities for future research are discussed. We also indicate some managerial implications arising from the research results.

6.01 *Research Overview*

In this dissertation, four research studies -three empirical studies and one conceptual study- are presented as a means of addressing five general research questions related to (i) the impact of purchased business services along the supply chain (study 1); (ii) the determining factors of business services exchange governance (study 2); (iii) the influence of certain determining factors on contractual and relational governance (study 3); (iv) the interplay between contractual and relational governance mechanisms and its impact on performance (study 3); (v) the impact of frontline employee behaviour on performance outcomes (study 4) in business services settings.

The empirical research studies were carried out in the Belgian security services market. The first empirical study (study 1) was conducted among 201 business customers of an organization buying security services from a major security services supplier in Belgium. In the second empirical study (study 3), 124 business customers buying security services from one or more security services suppliers in Belgium were incorporated. The third empirical study (study 4) was conducted among 1,174 security agents employed at one major security services supplier in Belgium.

The main findings of this dissertation are discussed below in the context of the five research questions and a general conclusion is drawn.

(i) The impact of purchased business services along the supply chain

In a first empirical study (Chapter 2), we investigate the impact of purchased business services by a service provider on downstream supply chain members. More specifically, we investigate the impact of purchased security services along the supply chain. The results indicate that services purchased from a supplier influence the satisfaction of the buying organization's customers. The exchange between the supplier and the buyer affects the buying organization's exchanges with end-customers and thus, that supplier becomes a member of the buying organization's network (Ritter, 2000). Because of that relationship interconnectedness, the governance of the purchased services, i.e. security services, gains in importance. This relationship interconnectedness also holds for those end-customers considering the purchased services as less important. As such, not only relationships with suppliers delivering strategically valuable services can be an important source of competitive value (Ritter et al., 2004). The relationships with suppliers delivering support services to assist the company in its core business delivery should also be incorporated in the buying organization's business network: the governance of the exchange between a security services supplier and a buying organization can affect the exchanges of the buying organization with other members of the business network.

Next to the impact of purchased business services along the supply chain, there was an additional interesting finding in this study: the elements determining satisfaction depend on the position of the evaluator with regard to the position of the supplier in the supply chain. The more the supplier's position in the supply chain is upstream compared to the evaluator's position, the more 'tangible' (easier to judge) evidence will be used to evaluate the service delivery.

(ii) The determining factors of business services exchange governance

The previous study indicated the importance of governing the exchange between a business service provider and a buying organization, particularly for security services. In the second study (Chapter 3), we give an overview of previous research studies that have investigated the exchange governance phenomenon by incorporating contractual and/or relational governance mechanisms in business settings. This overview reveals two important findings. First, few research studies have investigated the overall picture of exchange governance, i.e.

antecedents, contractual and relational governance, and performance outcomes. Second, limited attention is given to specific service characteristics and their impact on exchange governance.

Based on transaction cost theory (Williamson, 1975; 1979), relationship exchange theory (Macneil, 1980) and the results of previous studies, we indicate several features of the service transaction – both economic and social – which have an influence on exchange governance in business services settings. In relationship exchange theory, trust is considered as a non-economic or social factor which helps explain exchange governance (Joshi and Stump, 1999): it is the most encompassing determinant of relational governance (Claro et al., 2003; Macneil, 1980). Based on transaction cost theory, asset specificity and uncertainty are the most frequently cited economic antecedents of exchange governance (David and Han, 2004).

Service exchanges differ from good exchanges as the former are more people-oriented and less tangible. Because of these specific service characteristics, manufacturing and services firms respond differently to determinants of exchange governance such as asset specificity and uncertainty (Brouthers and Brouthers, 2003). First, because of the intangible nature of services, asset specificity consists of more than just physical and human transaction-specific investments; procedural asset specificity related to customized workflow and processes should also be considered (Zaheer and Venkatraman, 1995). Second, according to transaction cost theory, uncertainty is assumed to just have a moderating effect on exchange governance (David and Han, 2004). Environmental uncertainty, related to the unpredictability of the environment, is proposed to only influence exchange governance when a certain level of asset specificity occurs. As services are more people-oriented, behavioural uncertainty, related to the unpredictability of the exchange partner's behaviour, will have a stronger influence on exchange governance in services settings than in manufacturing settings (Brouthers and Brouthers, 2003): behavioural uncertainty is proposed to influence business services exchange governance apart from the level of asset specificity.

(iii) The influence of certain determining factors on contractual and relational governance in business services exchanges

In the third study (Chapter 4), exchange governance mechanisms in the security services sector are investigated more in detail. We focus on those features of the transaction that are

affected by specific service characteristics, i.e. asset specificity and uncertainty, as identified in the previous study. We investigate how these features influence the governance of security services exchanges. In this study, we also distinguish between two dimensions of contract structure: contract detail and contract flexibility (Battigalli and Maggi, 2002). Contract detail refers to the level of detail by which roles and obligations of the parties are specified; contract flexibility relates to the degree to which guidelines for handling unanticipated contingencies are incorporated in the contract (Luo, 2002). High level of contractual governance requires high levels on both contract detail and contract flexibility (Luo, 2002). In the third study, we thus investigate how asset specificity and uncertainty influence contract detail, contract flexibility, and relational governance in exchanges between security services suppliers and buying organizations. Figure 1 gives an overview of the impact of asset specificity and uncertainty on contractual governance and Figure 2 illustrates the impact of these antecedents on relational governance.

Asset specificity relates to transaction-specific investments in physical, human or procedural aspects deployed by supplier or buyer, respectively referred to as supplier asset specificity or buyer asset specificity. The results indicate that higher levels of supplier asset specificity relate to higher levels of relational governance, contract detail, and contract flexibility. Higher levels of buyer asset specificity only relate to higher levels of relational governance, and not directly to higher levels of contractual governance. Thus, specific investments made by the supplier are safeguarded by the contract and these safeguards also protect the buyer against opportunistic behaviour when transaction-specific investments are made.

Behavioural uncertainty is negatively related to both contractual governance and relational governance, while environmental uncertainty is only related to contractual governance. The impact of the latter differs for the two dimensions of contractual governance: environmental uncertainty is directly and negatively related to contract detail, but it has a positive moderating effect on contract flexibility. When the unpredictability of the environment is high, higher levels of supplier asset specificity result in higher levels of contract flexibility to be able to adjust the contract to changing circumstances and better safeguard the specific investments made.

The impact of behavioural uncertainty on contract flexibility is not straightforward: the study indicates a positive moderating effect of buyer asset specificity. Only with low levels of buyer asset specificity has behavioural uncertainty a negative impact on contract flexibility. When

the buyer makes more specific investments, the negative impact of behavioural uncertainty on contract flexibility is neutralized because the buying organization prefers more contract flexibility to assure the continuity of the relationship and as such safeguard the specific investments made.

Figure VI-1: Impact of asset specificity and uncertainty on contractual governance

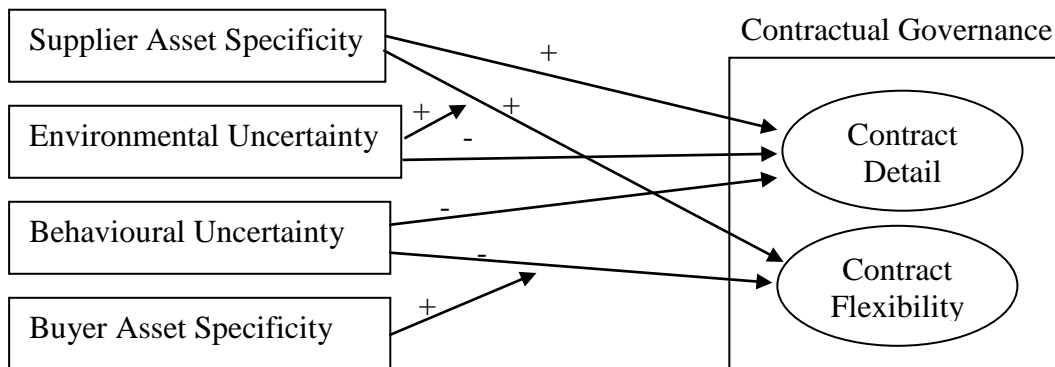
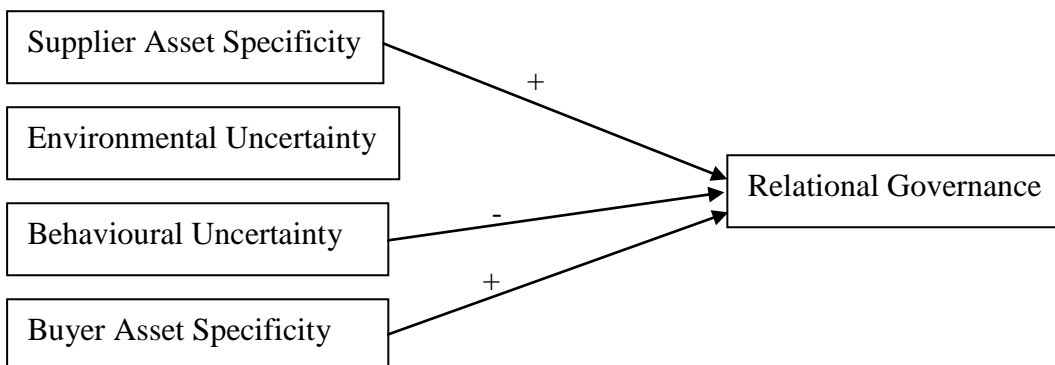


Figure VI-2: Impact of asset specificity and uncertainty on relational governance



(iv) The interplay between contractual and relational governance mechanisms and its impact on performance in business services settings

In that same study (Chapter 4), we also investigate how contractual and relational governance of security services exchanges are interrelated and how both governance mechanisms have an influence on the performance of the buyer-seller relationship. Again we identify the two dimensions of contractual governance, i.e. contract detail and contract flexibility. Performance is defined as customer-based evaluations of exchange performance, including satisfaction, willingness to recommend, and future purchase intentions.

The results indicate that the contract is an important governance mechanism and not inferior to other governance mechanisms such as relational governance. In accordance with the complementarity view on contracting and relational issues (Lazzarini et al., 2004), the contract facilitates the development of relational governance between buyer and seller and both governance mechanisms have a positive impact on performance outcomes. However, a discrepancy in the results on contract detail and contract flexibility is found. Contract detail is only directly related to relational governance, while contract flexibility is only directly related to performance outcomes. Detailed specification of the roles and obligations of both partners (high contract detail) helps to develop mutual agreed norms and values in the relationship and the expectation that the other partner will act as agreed upon. On the other hand, when the terms of the contract can be adjusted to include additional needs or to better comply with current needs (high contract flexibility), the buying organization will evaluate the exchange in a more positive way as service delivery will better meet their expectations.

(v) The impact of frontline employee behaviour on performance outcomes in business services settings

As frontline employees play a key role in services exchanges, we do not limit our study on business services exchanges to the impact of governance mechanism, but we also incorporate the influence of frontline employees in the relationship. In a last study (Chapter 5), we investigate how different types of frontline employee behaviour influence the productivity and quality performed by the employee.

The results confirm the general acknowledged linkage between behaviour of frontline service employees and performance outcomes (Schneider et al., 2005), but the different types of frontline employee behaviour do not influence performance in the same way. According to general consensus, in-role behaviour directly influences both performance productivity and performance quality. Extra-role behaviour is an antecedent of in-role behaviour and, in line with previous research studies (Piercy et al., 2006), in-role behaviour mediates the impact of extra-role behaviour on performance quality. Contrary to previous research studies (Piercy et al., 2006), extra-role behaviour is directly related to performance productivity: in-role behaviour is only a partial mediator for the relationship between extra-role behaviour and performance productivity. Certain types of frontline employee behaviour such as

communicating opportunities for service improvement are not only related to in-role behaviour, but these types of behaviour also directly influence the performed productivity.

(vi) General conclusion

In this dissertation, the main focus is on business services management: we investigate how business services exchanges should be managed to enhance performance outcomes. The studies included in this dissertation add valuable contributions from both a theoretical and a practical point of view. On the basis of the results presented in this dissertation, we provide empirical support for the relevance of security services in the current business economy. To investigate the governance of these security services exchanges -or even business services exchanges in general- the specific characteristics of the services delivered should be considered. The results of this dissertation also indicate that, to obtain a clear insight into the phenomenon of business services exchanges and their performance outcomes, an overall picture should be taken into account. For example, not only downstream supply chain members, but also those organizations with a more upstream position in the supply chain should be included. Moreover, especially for support services, the exchange governance mechanisms as well as frontline employee behaviour should be incorporated. Frontline employee behaviour should relate to both in-role and extra-role behaviour. Exchange governance mechanisms should incorporate both contractual and relational governance, and contractual governance should relate to the level of detail as well as the level of flexibility. Research studies on business services exchanges should thus be more multidisciplinary. Another major contribution of this dissertation is the setting in which the research studies are performed. Although support services are an important part of business services (Lehtonen and Salonen, 2005) and the security services sector has been growing over the past years, few research studies have focused on that particular setting. Our research results confirm the importance of support services, and more specifically security services, in business networks and the studies also offer practical suggestions for managing security services exchanges on both an organizational and employee level.

6.02 *Limitations and Future Research*

The results of this dissertation are subject to a number of limitations, of which several hold a possibility for future research.

The studies in this dissertation have ‘performance’ as dependent variable. In each study, different respondents (end-customer, buyer, employee) are involved and performance is each time defined from a different viewpoint. In the first study, performance is defined as the transaction-specific satisfaction from the end-customer. In the second and third study, performance is defined as customer-based evaluation of exchange performance (including overall satisfaction, willingness to recommend, and future purchase intentions), the customer being the buying organization. In the fourth study, performance is defined as performed productivity and quality from the employees’ point of view. Due to the lack of uniform measurement of performance, research results can not be compared. Future research should use a more general measure of performance and also incorporate some objective performance indicators such as turnover, margin, volume or number of complaints.

In this dissertation, the focus is on firm-to-firm relationships and the impact of frontline employees on performance outcomes. Although not the scope of this study, it could be valuable to incorporate other governance mechanisms such as interpersonal relationships between key people of both supplying and buying organizations (Haytko, 2004). Future research could also further investigate the interplay between governance mechanisms and frontline employee behaviour. Extra-role behaviour such as communication among boundary-spanning personnel produces common agreement on norms (Hutt et al., 2000) and could thus enhance relational governance. On the other hand, role-prescribed behaviour might be determined by the level of contract detail and the specified roles and obligations of both parties. To investigate the interplay between governance mechanisms and frontline employee behaviour, more exploratory, qualitative research is needed as the different exchange governance mechanisms could be an antecedent or an outcome of frontline employee behaviour.

In the empirical studies in this dissertation, a static approach is used: the business service exchange is investigated at a certain point in the life after the purchase. Future research should incorporate a more dynamic approach by considering interfirm relationships as a

developmental process (Ring and Van de Ven, 1994). Longitudinal research is needed to further investigate possible recursive relationships that can occur between for example exchange governance mechanisms and features of the service transaction, performance outcomes and frontline employee behaviour, and the evaluation of downstream supply chain members and upstream exchange governance.

Another possibility for future research is investigating the effectiveness and efficiency of specific tools developed for the governance of business services exchanges. Service level agreements for example are written agreements between a service provider and a buying organization in which communication and relationship management play an important role (Vandaele and Gemmel, 2004): certain aspects of contractual and relational governance are thus merged into one specific tool. These agreements have been frequently used in information services exchanges and recently, other services sectors are starting to use this tool as well. More academic research is needed to investigate how service level agreements should be established and how these agreements can affect performance outcomes in business services settings.

The three empirical studies are performed in the security services sector in Belgium. Although the inclusion of several major security services suppliers (in study 3) enhances the validity of our results for the Belgian security services sector, response rates between 18% and 32% suggest being careful with generalizing the study results. The collection of dyadic data (e.g., from both the supplier's and the buyer's side) or data from multiple respondents (e.g., employee, buying organization, end-customer) within one research study might give more detailed information on some of the relationships found. Further research in other business services sectors, and support services settings, is also needed to improve external validity. More research on interesting results out of this dissertation such as the relevance of contract detail and contract flexibility in other settings could provide valuable insights for business services exchanges governance.

6.03 *Managerial Implications*

A first important managerial implication is the relevance of support services suppliers, more specifically security suppliers, in an organization's business network (Chapter 2). Although

support services might not seem strategically valuable at first sight – as these services just assist the company in its core business delivery – these services can influence downstream supply chain members. Selection and evaluation of the support services supplier should therefore be carried out carefully, taking into account the impact of that supplier along the supply chain. The establishment of a performance measurement system or the development of long-term relationships can help the buying organization to better manage the interaction with support services suppliers. Changes in upstream interactions, such as replacing the current support services supplier, can affect the other relationships within the organization's business network in either a positive or a negative way.

The results of the second and third study (Chapter 3 and 4) indicate several managerial implications on how business services exchanges should be governed. First, a contract or formal, written agreement should be established for a particular buyer-seller interaction and this should also be used to govern the relationship. During the ongoing interaction, a contract established *ex ante* facilitates the development of relational governance and improves the customer's evaluation of the service delivery during the life after the purchase. The level of detail and the level of flexibility in the contract depend on the specific features of the service transaction under consideration. The level of contract detail should be mainly determined by the supplier and depends on the anticipated amount of specific supplier investments needed for the service to be delivered. Then again, when environmental or behavioural uncertainty are high, it will be more difficult to stipulate *ex ante* the roles and obligations of both parties. The level of contract flexibility should also depend on the anticipated amount of specific supplier investments needed and when environmental uncertainty is high, higher levels of flexibility should be used to safeguard the investments made. The level of contract flexibility should also take into account the amount of specific investments made by the buyer. When there are few such investments, the level of contract flexibility should be low when behavioural uncertainty increases to avoid misuse related to unnecessary changing of the contract. Higher specific investments made by the buyer will decrease the possibility of that misuse, as the stakes of the buyer have increased. Thus, the negative impact of behavioural uncertainty on contract flexibility can be neutralized by the specific investments made by the buyer.

Next to the establishment of the contract, relational governance should be developed during the ongoing buyer-seller interaction in the live after the purchase because of its positive

impact on the customer's evaluation of the service delivery. A detailed contract with specific roles and obligations for each partner will encourage the development of common values and norms because each exchange partner knows what to do and what to expect. The development of relational governance is not only dependent on the level of contract detail; several features of the service transaction also play a role. When supplier and/or buyer make specific investments in a particular buyer-supplier relationship, the investing party will be more willing to develop relational governance as an additional safeguard for the investments made. Then again, when behavioural uncertainty is high, it will be more difficult to develop common values and norms because of the unpredictability of the exchange partner's behaviour.

The results of the fourth study (Chapter 5) indicate that in business services exchanges not only the governance of the exchange influences the performance outcomes, but the way the service is delivered and the behaviour of frontline employees also plays a role. Organizations purchasing business services should not just govern the exchange with the external services supplier, but also pay attention to the employees delivering the services. As support services are mainly delivered at the premises of the buying firm, the latter should try to encourage both in-role and extra-role behaviour of the supplier's frontline employees, also because of the impact of purchased support services along the supply chain. The buying organization could for example communicate to the supplier and its frontline employees which type of role-prescribed behaviour is needed to fulfil the needs of the buying organization's customers.

6.04 References

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Appendix

Appendix A: Measurement items used in Chapter II

Satisfaction with security services supplier

All items were measured on 7-point rating scales ranging from 1 “completely unsatisfied”, to 7 “completely satisfied”.

Transaction-specific satisfaction

“Please indicate the extent to which you are satisfied with the services delivered by *security company* on the premises of *business company* during the last quarter of 2003.

1. The accessibility and ability to contact the security services supplier.
2. The expertise and knowledge of the security agents.
3. The direct contact with the security agents.
4. The visibility of the security agents at the business company’s premises.
5. The reliability of the security services supplier.
6. The way in which complaints are handled by the security services supplier.

Overall satisfaction

1. In general, how satisfied are you with the services delivered by *security company* on the premises of *business company*?

Importance attached to service

The item was measured on 7-point rating scales ranging from 1 “completely unimportant”, to 7 “completely important”.

1. How important do you consider the delivered services by *security company*?

Satisfaction with exhibition services supplier

All items were measured on 7-point rating scales ranging from 1 “completely unsatisfied”, to 7 “completely satisfied”.

Transaction-specific satisfaction

“Please indicate the extent to which you are satisfied with the general services delivered by *business company* (and not just related to security) during the last quarter of 2003.

1. The accessibility and ability to contact the business company.
2. The expertise and knowledge of the business company’s personnel.
3. The direct contact with the business company’s personnel.
4. The reliability of the business company.
5. The way in which complaints are handled by the business company.

Overall satisfaction

1. In general, how satisfied are you with the services delivered by *business company*?

Appendix B: Measurement items used in Chapter IV

All items were measured on 7-point rating scales ranging from 1 “completely disagree, to 7 “completely agree”.^a

Supplier asset specificity (SAS)

1. Our supplier has carried out considerable adjustments to the delivered service in order to meet the requirements from our organization.
2. Our supplier has to a great extent invested in specific resources in order to adjust to our service requirements.
3. Our supplier has to a great extent adjusted the service offering to the procedures of our organization.
4. Our supplier has invested a substantial amount of time and money to train and qualify their personnel in order to deliver the requested service.
5. Our supplier has invested to a great extent in the adequate knowledge and skills needed for the requested service to be delivered.

Buyer asset specificity (BAS)

1. Our organization has made significant investments in tooling and equipment dedicated to our relationship with this supplier.
2. Our organization has adapted specific procedures to this supplier to enable an efficient service delivery.
3. Our organization has made significant investments in technology so that this supplier can deliver the requested service.
4. To be effective, a service employee has to get to know our organization and its procedures before he can perform the requested service.
5. Our organization has to a great extent invested time and money in training and qualifying this supplier’s personnel.
6. If our organization decided to work with another supplier, we would be wasting a lot of investments that we have made to work with this supplier.

Environmental uncertainty (EnvUnc)

1. Market conditions of our supplier are very unstable.
2. Prices of the delivered services fluctuate heavily between suppliers.
3. The technology used in this service delivery alters quickly.^b

Behavioral uncertainty (BehUnc)

1. For this type of service delivery, it is easy to evaluate whether the promised service has been delivered. (-)
2. The delivered performance can be easily measured for this type of service. (-)
3. Some aspects of this supplier’s service delivery are difficult to evaluate objectively.
4. For this type of services, standards can be easily defined. (-)

^a (-): reversed scaled item

^b Item was removed during scale purification

Contract detail (Cdeta)

1. With this supplier, we have a specific, well-detailed formal agreement.
2. We have formal agreements that detail the obligations of both parties.
3. We have detailed contractual agreements with this supplier.

Contract flexibility (Cflex)

1. The written agreement with this supplier can be easily adapted to changing circumstances.
2. Our organization considers the written agreement with this supplier as flexible.

Relational Governance (RelGov)

1. Both parties are committed to the preservation of good working relationships with each other.
2. Both parties make much trouble to maintain a cooperative relationship with each other.
3. In case of conflict, both parties are motivated to review the history and all the facts of an issue.
4. Both parties try to arrive at a mutual settlement among themselves in case of dispute.
5. In this relationship, both parties provide relevant information to the other party on time.
6. It is expected that we keep each other informed about events or changes that may affect the other party.
7. Both parties are flexible in their response to requests made by the other party.
8. The parties expect to be able to make adjustments in the ongoing relationship to cope with changing circumstances.
9. Both parties are open to each other's request to improve the agreement.

Performance (Perf)

1. Overall, we are very satisfied with this supplier.
2. Our organization is not completely pleased with this supplier. (-)
3. We will recommend this supplier to other purchasing managers.
4. Our organization has the intention to continue /renew the current relationship with this supplier.
5. Our organization has the intention to expand the current relationship with this supplier.

Appendix C: Measurement items used in Chapter V

Boundary spanning behaviour

“Please indicate for each statement the extent to which you agree with this description as being characteristic of you.” The items were measured on 7-point rating scales ranging from 1 “completely disagree, to 7 “completely agree”.

Service delivery behaviour

1. I follow up on customer requests and problems in a timely manner.
2. Regardless of circumstances, I behave exceptionally courteous and respectful to customers.
3. I follow through in a conscientious manner on promises I have made to customers.

Internal influence behaviour

1. I make constructive suggestions for improvement of the delivered security services.
2. I share creative solutions to customer problems with my supervisor or other colleagues.
3. I encourage co-workers to contribute ideas and suggestions for service improvement.

External representation behaviour

1. I recommend this security company to outsiders as a great place to work.
2. I make sure that outsiders adopt a positive attitude towards this security company.
3. I stress the good things about this security company to others.

Role ambiguity ^a

The items were measured on 7-point rating scales ranging from 1 “completely disagree, to 7 “completely agree”.

1. I have clear, planned goals and objectives for my job. (-)
2. I know exactly what my responsibilities are when performing the job. (-)
3. I know exactly what is expected of me in the job. (-)

Performance

“Please indicate for each statement to what extent your performance level is inferior or superior, compared with an average security agent of the company.” The items were measured on 7-point rating scales ranging from 1 “inferior performance”, to 7 “superior performance”.

Productivity

1. Overall customer contact.
2. Meeting your quotas and targets.
3. Overall performance in reaching objectives.
4. Following the company’s suggested procedures and processes.
5. Providing accurate and complete paperwork.
6. Timely and accurate communicating to colleagues.
7. Overall knowledge of company and customer policies and procedures.
8. Keeping abreast of your company’s policies.

^a (-): reversed scaled item

Quality

1. Taking the initiative to help your customers -within what is allowed- even when it is not part of your responsibility.
2. Taking the time to make an additional effort for your customers -within what is allowed- on top of the daily routine.
3. Overall developing customer trust and confidence in your service.
4. Responding promptly to customer requests, despite your busy workload.
5. Immediately answering a call -by phone or otherwise.
6. Consistently following up on promises made by yourself, colleagues or the company to the customer.
7. Following up on a certain assignment until completion.
8. Consistently providing prompt service to your customers.
9. Consistently resolving customer concerns.
10. Providing accurate and correct information to the customer.
11. Making sure colleagues follow through with customer requests.
12. Telling the customers the straight facts instead of telling them what they want to hear.
13. Overall performing your job dependably and accurately.
14. Listening attentively to understand the concerns of the customer.
15. Working out solutions to the customer's questions or concerns.
16. Providing individualized attention to the customer's concerns.

